INDEX

Soviet Physics – Technical Physics

Volume 14, 1969

Soviet Physics – Technical Physics
Volume 14, 1969
A translation of Zhurnal Tekhnicheskoi Fiziki

ABRAMOVICH, L. Yu.
Plasma Efficiency Coefficient δ in an Overdense Glow Discharge. (E) L. Yu. Abramovich, B. N. Klyarfel'd, and Yu. N. Nastich. 14, 939 (1970) [39, 1251 (1969)]

ADZHIASHVILI, D. S.
Nonlinear Waves in a Three-Component Plasma. (T) A. D. Pataraya and D. S. Adzhiashvili. 14, 453 (1969) [39, 602 (1969)]

AFANAS'EV, Yu. V.
Gas-Dynamic Processes in Irradiation of Solids. (E/T) Yu. V. Afanas'ev, N. G. Basov, O. N. Krokhin, N. V. Morachevskii, and G. V. Sklizkov. 14, 669 (1969) [39, 894 (1969)]

AFROSIMOV, V. V.
Coincidence Method for Studying Charge-Exchange in Proton-Inert Gas Interactions. (E) V. V. Afrosimov, Yu. A. Mamaev, M. N. Panov, and N. V. Federenko. 14, 109 (1969) [39, 159 (1969)]

AGEEV, V. N.
Desorption, by Slow-Electron Bombardment, of Ions and Neutral Molecules from Gases Adsorbed on the Surface of Tungsten. (E) V. N. Ageev and É. N. Kutsenko. 14, 958 (1970) [39, 1275 (1969)]
Interaction of Water Vapor with Tungsten Surfaces. (E) V. N. Ageev, N. I. Ionov, and Yu. K. Ustinov. 14, 1009 (1970) [39, 1337 (1969)]
Desorption of Oxygen from Tungsten. (E) V. N. Ageev and N. I. Ionov. 14, 1142 (1970) [39, 1523 (1969)]

AKIRTAVA, O. S.
Intensity Modulation of the Optical-Radiation Lines in an RF Discharge. (E) O. S. Akirtava, A. M. Bogus, and V. L. Dzhikiya. 14, 1070 (1970) [39, 1425 (1969)]

ALBEGOVA, I. Kh.
I-V Characteristics of Superconducting Tunnel Junctions. (E/T) I. Kh. Albegova, B. I. Borodai, I. K. Yanson, and I. M. Dmitrenko. 14, 681 (1969) [39, 911 (1969)]

ALEKSANDROV, A. F.
Plasma Polarization in the Low-Frequency Region. (E) A. F. Aleksandrov, A. A. Kuzovnikov, V. S. Sviridkina, and V. V. Tarasova. 14, 1628 (1970) [39, 2158 (1969)]

ALEKSANDROV, G. N.
Growth of a Spark Discharge in a Wide Air Gap. (T) G. N. Aleksandrov. 14, 560 (1969) [39, 744 (1969)]

ALEKSEEV, N. I.
Desorption of Atoms of Rare-Earth Elements from a Rhenium Surface. (E) N. I. Alekseev. 14, 704 (1969) [39, 940 (1969)]

ALEKSEEV, V. V.
A Method for the Simultaneous Investigation of the Transmission, Reflection, and Absorption of Inert Gas Ions in Thin Solid Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 403 (1969) [39, 543 (1969)]
Interaction of He^+ Ions with Certain Metals. (E) A. Ya. Vyatskin, V. V. Alekseev, and K. A. Makarov. 14, 408 (1969) [39, 549 (1969)]
Investigation of Transmission, Reflection, and Absorption of He^+ Ions in Thin Semiconductor Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 413 (1969) [39, 554 (1969)]

ALEKSENKO, D. S.
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. I. (T/E) V. I. Petrosyan, É. I. Dagman, D. S. Aleksenko, and P. A. Skripkina. 14, 1560 (1970) [39, 2076 (1969)]

ALEKSIN, V. F.
Plasma Stability in a Corrugated Magnetic Field. (T) V. F. Aleksin and V. I. Yashin. 14, 1608 (1970) [39, 2130 (1969)]

ALINOVSKII, N. I.
Mean for Ionization Cross Sections of Neutral Beams by Electrons with a Maxwellian Velocity Distribution. (T) N. I. Alinovskii, Yu. E. Nesterikhin, and B. K. Pakhtusov. 14, 96 (1969) [39, 139 (1969)]

ANAN'EV, Yu. A.
Single-Pulse Laser with an Unstable Resonator. (E) Yu. A. Anan'ev, N. A. Sventsitskaya, and V. E. Sherstovitov. 14, 997 (1970) [39, 1325 (1969)]
Some Properties of Ring-Type Unstable Cavities with Angular Selection of Radiation. (T) Yu. A. Anan'ev and G. N. Vinokurov. 14, 1000 (1970) [39, 1327 (1969)]
Mode Deformation in Open Resonators with Plane Mirrors. (T) Yu. A. Anan'ev, V. V. Lyubimov, and I. B. Orlova. 14, 1408 (1970) [39, 1872 (1969)]

ANDREEV, N. E.
Instability of a Magnetized Plasma in a High-Frequency Field. (T) N. E. Andreev. 14, 1171 (1970) [39, 1560 (1969)]

ANDREEV, S. I.
Electrodeless High-Frequency Pulsed Discharge in Inert Gases. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 769 (1969) [39, 1025 (1969)]
Investigation of the Energy Transfer Efficiency for a Pulsed Induction Discharge. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 774 (1969) [39, 1032 (1969)]

ANDREEV, V. G.
Axially Symmetric Electromagnetic Field in a Cylindrical Cavity Resonator with Conducting Irises or Drift Tubes. (T) V. G. Andreev. 14, 1516 (1970) [39, 2011 (1969)]

ANDRIANOV, A. M.
Pulsed Discharges in Dielectric Chambers. (E) A. M. Andrianov, A. I. Zemskov, V. V. Prut, and V. A. Khrabrov. 14, 318 (1969) [39, 433 (1969)]

ANDRONOV, A. A.
Thin Cylindrical Antenna in an Isotropic Plasma. (T) A. A. Andronov and V. Ya. Éidman. 14, 267 (1969) [39, 365 (1969)]

ANICHIN, B.
Effect of Refraction on the Interferometric Measurements of Electron Density. (T) B. Anichin. 14, 354 (1969) [39, 478 (1969)]

ANTSIFEROV, V. V.
Angle, Time and Frequency Characteristics of a Traveling-Wave Ruby Laser. (E) V. V. Antsiferov, G. V. Krivoshchekov, V. S. Pivtsov, and K. G. Folin. 14, 696 (1969) [39, 931 (1969)]

AREF'EV, V. I.
Instability of a Current-Carrying Homogeneous Plasma. (T) V. I. Aref'ev. 14, 1487 (1970) [39, 1973 (1969)]

ARSENIN, V. V.
Current Convective Instability of a Weakly Ionized Plasma in the Pressure of a Feedback. (T) V. V. Arsenin and V. A. Chuyanov. 14, 315 (1969) [39, 429 (1969)]
Stabilization of Large-Scale Plasma Instabilities by Feedback. (T) V. V. Arsenin. 14, 1166 (1970) [39, 1553 (1969)]

ARTAMONOV, O. M.
Electron-Optics Parameters of a Two-Electrode Cylindrical Mirror. I. (E) O. M. Artamonov and G. N. Brodskii. 14, 846 (1969) [39, 1126 (1969)]

ASHURLY, Z. I.
Analysis of Spark Gap with a Series-Connected Capacitor. (T/E) Yu. M. Emel'yanov, V. G. Babyan, and Z. I. Ashurly. 14, 933 (1970) [39, 1241 (1969)]

AVAKYAN, S. V.
Spectrum of Electrons Emitted in Atomic Collisions. (E) G. N. Ogurtsov, I. P. Flaks, and S. V. Avakyan. 14, 972 (1970) [39, 1293 (1969)]

AZAREVICH, A. Ya.
Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]

BABAYAN, V. G.
Analysis of Spark Gap with a Series-Connected Capacitor. (T/E) Yu. M. Emel'yanov, V. G. Babayan, and Z. I. Ashurly. 14, 933 (1970) [39, 1241 (1969)]

BABIN, V. P.
Enhancement of Thermoelectric Cooling in Nonstationary Operation. (T) V. P. Babin and E. K. Iordanishvili. 14, 293 (1969) [39, 399 (1969)]

BAIKOV, I. S.
Low-Frequency Hydrodynamic Instability of a Current-Carrying Inhomogeneous Plasma. (T) I. S. Baikov, E. Ya. Kogan, S. S. Moiseev, and A. A. Rukhadze. 14, 163 (1969) [39, 230 (1969)]

BAIKOV, O. G.
Electrodeless High-Frequency Pulsed Discharge in Inert Gases. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 769 (1969) [39, 1025 (1969)]
Investigation of the Energy Transfer Efficiency for a Pulsed Induction Discharge. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 774 (1969) [39, 1032 (1969)]

BAIMBETOV, F.
Effect of a Nonlinear Monochromatic Wave on the Electrical Conductivity of a Fully Ionized Plasma. (T) F. Baimbetov and N. L. Tsintsadze. 14, 1339 (1970) [39, 1781 (1969)]

BALBEKOV, V. I.
Parametric Resonance in Strong-Beam Accelerators. (T) V. I. Balbekov and I. A. Shukeilo. 14, 1401 (1970) [39, 1863 (1969)]

BAKSHT, F. G.
Current-Voltage Characteristics of a Thermionic Converter at High Current Densities. Ionization Equilibrium in the Plasma of the Low-Voltage Arc. (T) F. G. Baksht, I. L. Korobova, and B. Ya. Moizhes. 14, 300 (1969) [39, 408 (1969)]
Theory of the Electrodic Sheath in a Low-Temperature Plasma. (T) F. G. Baksht, B. Ya. Moizhes, and V. A. Nemchinskii. 14, 417 (1969) [39, 558 (1969)]
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]
Electron Energy Distribution in the Electrode Sheath in a Weakly Ionized Plasma. (T) F. G. Baksht. 14, 1196 (1970) [39, 1594 (1969)]

BAKULIN, E. A.
A Multi-Electrode Probe for Negative Potentials Relative to a Plasma. (E) E. A. Bakulin, M. M. Bredov, E. V. Stepin, and V. V. Shcherbinina. 14, 73 (1969) [39, 108 (1969)]
Retardation Method for Plasma Measurements. (E) E. A. Bakulin, E. V. Stepin, and V. V. Shcherbinina. 14, 77 (1969) [39, 114 (1969)]

BALASHOV, I. F.
Double-Pass Laser Amplifier. (E) I. F. Balashov, V. A. Berenberg, and V. V. Blagoveshchenskii. 14, 692 (1969) [39, 926 (1969)]
On Enhanced Optical Gain. (T) I. F. Balashov and V. A. Berenberg. 14, 1415 (1970) [39, 1881 (1969)]

BARANOV, V. Yu.
Contraction of a Positive Column. I. (E) V. Yu. Baranov and K. N. Ul'yanov. 14, 176 (1969) [39, 249 (1969)]
Contraction of a Positive Column. II. (T) V. Yu. Baranov and K. N. Ul'yanov. 14, 183 (1969) [39, 259 (1969)]

BARANYUK, V. V.
Determination of Excess Heat Functions of Binary Gas Mixtures from Temperature Effects in Steady-State Interdiffusion. (T/E) L. S. Kotousov and V. V. Baranyuk. 14, 273 (1969) [39, 372 (1969)]

BARTASHYUS, I. Yu.
Mechanism for Electric Breakdown in High Vacuum. (E) L. I. Pranevichyus and I. Yu. Bartashyus. 14, 1301 (1970) [39, 1728 (1969)]

BASARGIN, Yu. G.
Magnetooptical Systems with a Plane of Symmetry. (T) Yu. G. Basargin. 14, 171 (1969) [39, 241 (1969)]
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]
Design Parameters of an Ion-Optical System for Transport and Analysis of a Beam Extracted from the 240-Centimeter Isochronous Cyclotron. (T) Yu. G. Basargin and L. E. Korolev. 14, 1109 (1970) [39, 1478 (1969)]
Design Parameters for a Monochromatic External Cyclotron Beam. (E) Yu. G. Basargin. 14, 1696 (1970) [39, 2247 (1969)]

BASOV, N. G.
Gas-Dynamic Processes in Irradiation of Solids. (E/T) Yu. V. Afanas'ev, N. G. Basov, O. N. Krokhin, N. V. Morachevskii, and G. V. Sklizkov. 14, 669 (1969) [39, 894 (1969)]

BEILIS, I. I.
Energy Losses in a High-Power Electron Beam. (E) I. I. Beilis, V. I. Rakhovskii, L. G. Tkachev, and M. Ya. Smelyanskii. 14, 1237 (1970) [39, 1650 (1969)]

BELENOV, E. M.
Effect of Amplitude Fluctuations on the Beat Frequency Stability of the Traveling Waves in a Ring Laser. (T) É. M. Belenov. 14, 92 (1969) [39, 133 (1969)]

BELOKON', A. A.
Theory of the Low-Voltage Arc in the Thermionic Converter. (T/E) A. A. Belokon' and É. B. Sonin. 14, 1583 (1970) [39, 2105 (1969)]

BELONOGOV, A. M.
Electromagnetic Oscillations in a Three-Dimensional Resonator in a Rotating Reference Frame. (T) A. M. Belonogov. 14, 883 (1970) [39, 1175 (1969)]

BELOUSOVA, I. M.
Level Populations in a Hollow-Cathode Discharge in Neon. (E/T) I. M. Belousova and V. B. Znamenskii. 14, 859 (1969) [39, 1140 (1969)]
Selection of Longitudinal Modes in a Gas Laser with a Three-Mirror Resonator. (E) I. M. Belousova, O. B. Danilov, and A. F. Zapryagaev. 14, 1676 (1970) [39, 2223 (1969)]

BELOV, V. P.
Production of Uniform Electron Irradiation Fields by Stationary Magnetic Fields. (T) V. P. Belov. 14, 914 (1970) [39, 1218 (1969)]
Accelerator Output Devices. 1. Achromatic Magnetic Deflection Systems. (T) V. P. Belov and A. M. Kokorin. 14, 1520 (1970) [39, 2018 (1969)]

BELYAKOV, Yu. I.
Desorption of O^+ and H^+ Ions from a Graphite Surface under Slow-Electron Bombardment. (E) M. I. Datsiev and Yu. I. Belyakov. 14, 848 (1969) [39, 1128 (1969)]

BERENBERG, V. A.
Double-Pass Laser Amplifier. (E) I. F. Balashov, V. A. Berenberg, and V. V. Blagoveshchenskii. 14, 692 (1969) [39, 926 (1969)]
On Enhanced Optical Gain. (T) I. F. Balashov and V. A. Berenberg. 14, 1415 (1970) [39, 1881 (1969)]

BILENSKII, V. P.
Stray Magnetic Fields above a Ferromagnet. (T/E) V. P. Bilenskii. 14, 1395 (1970) [39, 1855 (1969)]

BILLER, E. Z.
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

BLAGOVESHCHENSKII, V. V.
Double-Pass Laser Amplifier. (E) I. F. Balashov, V. A. Berenberg, and V. V. Blagoveshchenskii. 14, 692 (1969) [39, 926 (1969)]

BOBYKIN, B. V.
Path of Charged Particles through Three-Electrode Telescope Deflection Systems. (E/T) B. V. Bobykin, V. M. Kel'man, Yu. A. Nevinnyi, and L. M. Sekunova. 14, 1463 (1970) [39, 1941 (1969)]

BODRETSOVA, A. I.
Pyrotechnically Excited Quasi-CW Laser. (E) A. A. Kaminskii, A. I. Bodretsova, and S. I. Levikov. 14, 396 (1969) [39, 535 (1969)]

BOGATYREV, A. F.
Thermal-Diffusion Pressure Effect. (E/T) N. D. Kosov, A. F. Bogatyrev, and L. I. Kurlapov. 14, 841 (1969) [39, 1119 (1969)]

BOGUS, A. M.
Intensity Modulation of the Optical-Radiation Lines in an RF Discharge. (E) O. S. Akirtava, A. M. Bogus, and V. L. Dzhikiya. 14, 1070 (1970) [39, 1425 (1969)]

BOLOTIN, L. I.
Experimental Investigation of an RF Discharge Used as a Plasma Waveguide. (E) A. M. Egorov, A. F. Kivshik, and L. I. Bolotin. 14, 765 (1969) [39, 1020 (1969)]

BORODAI, B. I.
I-V Characteristics of Superconducting Tunnel Junctions. (E/T) B. Kh. Albegova, B. I. Borodai, I. K. Yanson, and I. M. Dmitrenko. 14, 681 (1969) [39, 911 (1969)]

BOROVIK, E. S.
Intense Pulsed Magnetic Fields in Reinforced Multiturn Coils. (E/T) E. S. Borovik, A. G. Limar', and Yu. A. Litvinenko. 14, 510 (1969) [39, 678 (1969)]
Pulsed Arcs in Argon and Helium at Microwave Frequencies. (E) E. S. Borovik, V. I. Petrenko, R. V. Mitin, V. P. Kantsedal, and Yu. R. Knyazev. 14, 1063 (1970) [39, 1416 (1969)]

BORTNIKOV, Yu. S.
Corona Discharge in an Air Stream. (E) Yu. S. Bortnikov, V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 1579 (1970) [39, 2100 (1969)]

BREDIKHIN, M. Yu.
Supersonic Gas Jet as a Vacuum Seal. (T/E) M. Yu. Bredikhin, A. M. Il'chenko, E. I. Skibenko, and V. B. Yuferov. 14, 1573 (1970) [39, 2092 (1969)]

BREDOV, M. M.
A Multi-Electrode Probe for Negative Potentials Relative to a Plasma. (E) E. A. Bakulin, M. M. Bredov, E. V. Stepin, and V. V. Shcherbinina. 14, 73 (1969) [39, 108 (1969)]

BREIZMAN, B. N.
Effect of the Ion-Acoustic Instability on the Skin Effect in a Plasma. (T) B. N. Breizman, V. V. Mirnov, and D. D. Ryutov. 14, 1365 (1970) [39, 1817 (1969)]

BREUSOVA, L. N.
Longitudinal Potential Gradient in a Positive Column in H_2 and D_2. (E) L. N. Breusova. 14, 862 (1969) [39, 1143 (1969)]

BRODSKII, G. N.
Electron-Optics Parameters of a Two-Electrode Cylindrical Mirror. I. (E) O. M. Artamonov and G. N. Brodskii. 14, 846 (1969) [39, 1126 (1969)]

BULANIN, V. V.
Afterglow Diffusion in Various Gases. (E/T) V. V. Bulanin, A. P. Zhilinskii, and V. I. Smirnov. 14, 464 (1969) [39, 617 (1969)]
Instability of an Afterglow Plasma in a Magnetic Field. (E) V. V. Bulanin, V. E. Golant, and A. P. Zhilinskii. 14, 712 (1969) [39, 948 (1969)]

BUROV, I. V.
Work Function of Molybdenum-Rhenium Alloys. (E) E. M. Savitskii, I. V. Burov, and L. N. Litvak. 14, 535 (1969) [39, 713 (1969)]

BUSYGIN, E. P.
Hollow-Cathode Thermionic Converter Operating with a Low-Voltage Cesium Arc. (E) E. P. Busygin, V. G. Grigor'yants, and I. P. Yavor. 14, 1593 (1970) [39, 2119 (1969)]

BYKOVSKII, Yu. A.
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]
Energy Distribution of the Ions Produced by a Large Laser Pulse on a Solid Target. (E/T) Yu. A. Bykovskii, N. N. Degtyarenko, V. I. Dymovich, V. F. Elesin, Yu. P. Kozyrev, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 1269 (1970) [39, 1694 (1969)]

BYRDIN, Yu. A.
Probe Measurements of a Knudsen Arc in Argon. (E) Yu. A. Byrdin and A. F. Nastoyashchii. 14, 65 (1969) [39, 98 (1969)]

CHAPLII, V. I.
Self-Sustaining Discharge in a Moving Gas. (E/T) V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 216 (1969) [39, 302 (1969)]
Corona Discharge in an Air Stream. (E) Yu. S. Bortnikov, V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 1579 (1970) [39, 2100 (1969)]

CHECHULIN, V. N.
Application of Gauss Brackets to Calculations Involving Dispersive Electron-Optical Systems. (T) V. N. Chechulin and S. Ya. Yavor. 14, 1093 (1970) [39, 1457 (1969)]

CHEKALIN, E. K.
Interelectrode Processes in a Tenuous Plasma Stream with a Boundary Layer. (E/T) E. K. Chekalin and A. M. Watson. 14, 41 (1969) [39, 64 (1969)]
Radiation from a Dense Plasma Generated by an Exploded Wire in a Vacuum. (E) E. K. Chekalin and V. S. Shumanov. 14, 46 (1969) [39, 71 (1969)]

CHEKHLOV, K. V.
Calibration of Tracking Electrodes in Proton Synchrotrons. (E) G. S. Kazanskii, A. I. Mikhailov, A. P. Tsarenkov, and K. V. Chekhlov. 14, 363 (1969) [39, 492 (1969)]

CHEKMAREV, I. B.
Velocity of Plasma Inhomogeneities in Crossed Electric and Magnetic Fields. (T) I. B. Chekmarev, S. I. Rozov, and E. M. Drobyshevskii. 14, 496 (1969) [39, 660 (1969)]
Weakly Charged Gas between Coaxial Electrodes. (T) I. B. Chekmarev. 14, 1692 (1970) [39, 2241 (1969)]
The Langmuir Law and the Hydrodynamic Solution for One-Dimensional Motion of a Charged Gas. (T) I. B. Chekmarev. 14, 1695 (1970) [39, 2245 (1969)]

CHERKASOV, E. M.
Discharge Formation in Tubes. (T) L. N. Tunitskii and E. M. Cherkasov. 14, 1640 (1970) [39, 2173 (1969)]

CHERNOV, V. S.
Radiation Kinetics of a Q-Spoiled Optical Resonator. II. Passive Modulator. (T) A. M. Ratner and V. S. Chernov. 14, 662 (1969) [39, 885 (1969)]

CHERNYI, G. P.
The Relaxation of Electron and Ion Temperatures in a Plasma in a Strong Magnetic Field. (T) V. P. Silin and G. P. Chernyi. 14, 589 (1969) [39, 781 (1969)]

CHERNYKH, D. F.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]

CHERNYSHEVA, L. V.
Statistical Processing of Observations of Meteoritic Phenomena. (E) L. V. Chernysheva. 14, 1266 (1970) [39, 1689 (1969)]

CHISTYAKOV, P. N.
Vacuum Breakdown with Controlled Electrode Surfaces. I. (E) P. N. Chistyakov, A. L. Radionovskii, N. V. Tatarinova, N. E. Novikov, and D. S. Treshchikova. 14, 807 (1969) [39, 1075 (1969)]

CHUCHALIN, I. P.
Operational Results with the 1.5 GeV Synchrotron at the Tomsk Polytechnical Institute. (E) V. A. Vizir', P. P. Krasnonosen'kikh, N. A. Lashuk, I. P. Chuchalin, and P. M. Shchanin. 14, 736 (1969) [39, 982 (1969)]

CHUYANOV, V. A.
Current Convective Instability of a Weakly Ionized Plasma in the Pressure of a Feedback. (T) V. V. Arsenin and V. A. Chuyanov. 14, 315 (1969) [39, 429 (1969)]

DAGMAN, E. I.
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. I. (T/E) V. I. Petrosyan, É. I. Dagman, D. S. Aleksenko, and P. A. Skripkina. 14, 1560 (1970) [39, 2076 (1969)]
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. II. (T/E) V. I. Petrosyan and É. I. Dagman. 14, 1567 (1970) [39, 2084 (1969)]

DANILKIN, I. S.
Effect of Torodial Geometry on Magnetic Surfaces in a Stellarator. (T) I. S. Danilkin and I. K. Karpenko. 14, 1477 (1970) [39, 1959 (1969)]

DANILOV, O. B.
Selection of Longitudinal Modes in a Gas Laser with a Three-Mirror Resonator. (E) I. M. Belousova, O. B. Danilov, and A. F. Zapryagaev. 14, 1676 (1970) [39 2223 (1969)]

DARGEIKO, M. M.
Stabilization of Axially Symmetric Perturbations of a Conducting Fluid by a Distributed Automatic-Control System. (T) M. M. Dargeiko and Yu. I. Samoilenko. 14, 310 (1969) [39, 422 (1969)]

DASHUK, P. N.
Electrodeless High-Frequency Pulsed Discharge in Inert Gases. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 769 (1969) [39, 1025 (1969)]
Investigation of the Energy Transfer Efficiency for a Pulsed Induction Discharge. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 774 (1969) [39, 1032 (1969)]

DATSIEV, M. I.
Desorption of O^+ and H^+ Ions from a Graphite Surface under Slow-Electron Bombardment. (E) M. I. Datsiev and Yu. I. Belyakov. 14, 848 (1969) [39, 1128 (1969)]
A Study of Chemisorption of Oxygen on the (111) Face of Germanium and Silicon Single Crystals by Slow Electron Irradiation. (E) M. I. Datsiev. 14, 965 (1970) [39, 1284 (1969)]

DAVYDOV, B. B.
Investigation of Physical Processes in an Electrode-Discharge Shock Tube. (E) L. I. Grechikhin, B. B. Davydov, and L. Ya. Min'ko. 14, 518 (1969) [39, 689 (1969)]

DAVYDOVSKII, V. Ya.
Strong Absorption of Electromagnetic Radiation in an Inhomogeneous Collisionless Plasma. (T) V. Ya. Davydovskii and E. M. Yakushev. 14, 1687 (1970) [39, 2236 (1969)]

DEEV, V. M.
Structure of Two-Stream Oscillations Excited by an Electron Beam in a Plasma. (E) Yu. G. Yaremenko, V. M. Deev, S. M. Eremin, and I. F. Kharchenko. 14, 1158 (1970) [39, 1541 (1969)]
Detailed Structure of Beam-Plasma Instability. (E) V. A. Lavrovskii, V. M. Deev, S. A. Rogashkov, Yu. G. Yaremenko, and I. F. Kharchenko. 14, 1190 (1970) [39, 1586 (1969)]

DEGTYARENKO, N. N.
Energy Distribution of the Ions Produced by a Large Laser Pulse on a Solid Target. (E/T) Yu. A. Bykovskii, N. N. Degtyarenko, V. I. Dymovich, V. F. Elesin, Yu. P. Kozyrev, B. I. Nikolaev, S. V. Ryzhinkh, and S. M. Sil'nov. 14, 1269 (1970) [39, 1694 (1969)]

DEMIDENKO, I. I.
Plasma Stream in an Inhomogeneous Transverse Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, V. G. Padalka, B. N. Rutkevich, and K. D. Sinel'nikov. 14, 16 (1969) [39, 27 (1969)]
Tangential Injection of Plasma into a Toroidal Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, and V. G. Padalka. 14, 327 (1969) [39, 444 (1969)]

DEMIRKHANOV, R. A.
Emission of Energetic Ions from a Penning Discharge in an Inhomogeneous Magnetic Field. (E) R. A. Demirkhanov, Yu. V. Kursanov, and L. P. Skripal'. 14, 500 (1969) [39, 666 (1969)]

DEMUTSKII, V. P.
Study of an Oscillatory Electron-Ion Discharge in a Longitudinal Magnetic Field. (E) V. M. Rashkovan, V. P. Demutskii, and N. A. Khizhnyak. 14, 333 (1969) [39, 452 (1969)]

DEM'YANENKO, G. K.
Optical Characteristics of the Beam of a Linear Electron Accelerator. (E) G. K. Dem'yanenko and P. M. Ryabka. 14, 1622 (1970) [39, 2150 (1969)]

DIDENKO, A. N.
Design of High-Q Cavities and Sections of Iris-Loaded Waveguides with Large Apertures for Particles. (T/E) A. N. Didenko and R. G. Kaminskaya. 14, 1527 (1970) [39, 2029 (1969)]

DIMOV, G. I.
Vacuum Hydrogen Jet from a Supersonic Nozzle. (E) G. I. Dimov. 14, 512 (1969) [39, 681 (1969)]

DMITRENKO, I. M.
I-V Characteristics of Superconducting Tunnel Junctions. (E/T) I. Kh. Albegova, B. I. Borodai, I. K. Yanson, and I. M. Dmitrenko. 14, 681 (1969) [39, 911 (1969)]

DMITRIEV, M. T.
Stability Mechanism for Ball Lightning. (E) M. T. Dmitriev. 14, 284 (1969) [39, 387 (1969)]

DOINIKOV, N. I.
Computer Solution of Two-Dimensional Nonlinear Magnetostatic Problems (Strong-Saturation Case). (T/E) N. I. Doinikov and A. S. Simakov. 14, 1097 (1970) [39, 1463 (1969)]
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]

DOROFEEV, V. I.
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]

DOVBNYA, A. N.
Measurement of Charge Phase Distribution in a Traveling-Wave Linear Accelerator. (E) G. M. Ivanov, V. V. Pilipenko, L. A. Makhenko, and A. N. Dovbnya. 14, 369 (1969) [39, 500 (1969)]

DROBYSHEVSKII, E. M.
Velocity of Plasma Inhomogeneities in Crossed Electric and Magnetic Fields. (T) I. B. Chekmarev, S. I. Rozov, and E. M. Drobyshevskii. 14, 496 (1969) [39, 660 (1969)]

DRUZHININA, N. N.
Metal Sputtering by the Cathode Spot of a Vacuum Arc. (E) B. N. Klyarfel'd, N. A. Neretina, and N. N. Druzhinina. 14, 796 (1969) [39, 1061 (1969)]

DUSHIN, L. A.
Determination of Local Plasma Parameters by Absorption Measurements on a Refracted Microwave Beam. (E) L. A. Dushin, V. A. Pitkin, A. I. Skibenko, and I. D. Fomin. 14, 348 (1969) [39, 471 (1969)]

D'YACHKOV, B. A.
Lithium Yield from a Supersonic Lithium-Vapor Jet. (E) B. A. D'yachkov, S. M. Krivoruchko, and V. Yu. Petrusha. 14, 686 (1969) [39, 918 (1969)]

DYMOVICH, V. I.
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]
Energy Distribution of the Ions Produced by a Large Laser Pulse on a Solid Target. (E/T) Yu. A. Bykovskii, N. N. Degtyarenko, V. I. Dymovich, V. F. Elesin, Yu. P. Kozyrev, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 1269 (1970) [39, 1694 (1969)]

DYMSHITS, B. M.
Evaluation of the Effect of Electromagnetic Forces on the Channel of a Constricted Induction Discharge. (E) B. M. Dymshits and Ya. P. Koretskii. 14, 779 (1969) [39, 1039 (1969)]

DYUBKO, S. F.
Submillimeter CW Laser Using H_2O or HCN. (E) S. F. Dyubko, V. A. Svich, and R. A. Valitov. 14, 855 (1969) [39, 1135 (1969)]

DYUZHEV, G. A.
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]

DZHIKIYA, V. L.
Intensity Modulation of the Optical-Radiation Lines in an RF Discharge. (E) O. S. Akirtava, A. M. Bogus, and V. L. Dzhikiya. 14, 1070 (1970) [39, 1425 (1969)]

EGOROV, A. M.
Experimental Investigation of an RF Discharge Used as a Plasma Waveguide. (E) A. M. Egorov, A. F. Kivshik, and L. I. Bolotin. 14, 765 (1969) [39, 1020 (1969)]

ÉIDMAN, V. Ya.
Thin Cylindrical Antenna in an Isotropic Plasma. (T) A. A. Andronov and V. Ya. Éidman. 14, 267 (1969) [39, 365 (1969)]

ELESIN, V. F.
Energy Distribution of the Ions Produced by a Large Laser Pulse on a Solid Target. (E/T) Yu. A. Bykovskii, N. N. Degtyarenko, V. I. Dymovich, V. F. Elesin, Yu. P. Kozyrev, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 1269 (1970) [39, 1694 (1969)]

ELISEEV, B. V.
Virtual Cathode in a Spherical Diode. (T) B. V. Eliseev and Yu. P. Mordvinov. 14, 1637 (1970) [39, 2169 (1969)]

EMEL'YANOV, Yu. M.
Analysis of Spark Gap with a Series-Connected Capacitor. (T/E) Yu. M. Emel'yanov, V. G. Babayan, and Z. I. Ashurly. 14, 933 (1970) [39, 1241 (1969)]

ENAL'SKII, V. A.
Prebunching in a High-Current Linear Ion Accelerator with a Low Injection Energy. (T) V. A. Enal'skii, V. V. Osipov, A. P. Fedotov, and B. K. Shembel'. 14, 1530 (1970) [39, 2034 (1969)]

ÉNDER, A. Ya.
Two Potential Distributions in Knudsen Flow Operation of a Thermionic Converter in a Transverse Magnetic Field. (E) A. Ya. Ender. 14, 762 (1969) [39, 1016 (1969)]

EPISHIN, V. A.
Experimental Investigation of Coupled Open Resonators. (E) V. A. Epishin, V. V. Kamyshan, and R. A. Valitov. 14, 716 (1969) [39, 954 (1969)]

EREMIN, S. M.
Structure of Two-Stream Oscillations Excited by an Electron Beam in a Plasma. (E) Yu. G. Yaremenko, V. M. Deev, S. M. Eremin, and I. F. Kharchenko. 14, 1158 (1970) [39, 1541 (1969)]

ERMAKOV, A. I.
Cyclotron Interaction between an Electron Beam and the Fast Magnetosonic Wave. (E) A. I. Ermakov and N. I. Nazarov. 14, 1180 (1970) [39, 1573 (1969)]

FEDERENKO, N. V.
Coincidence Method for Studying Charge-Exchange in Proton-Inert Gas Interactions. (E) V. V. Afrosimov, Yu. A. Mamaev, M. N. Panov, and N. V. Federenko. 14, 109 (1969) [39, 159 (1969)]

FEDORCHENKO, A. M.
Incoherent Reflection of Electromagnetic Waves from a Plasma. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 27 (1969) [39, 42 (1969)]
Interaction of a Rotating Electron Beam with Asymmetric Modes in a Magnetized-Plasma Waveguide. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 439 (1969) [39, 587 (1969)]
Absolute and Convective Instability Criterion for Parametrically Interacting Waves. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 714 (1969) [39, 951 (1969)]
Propagation of Surface Waves in a Magnetoactive Plasma. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 853 (1969) [39, 1132 (1969)]
Spatial-Gain Criterion for Parabolic Equations. (T) A. M. Fedorchenko. 14, 1163 (1970) [39, 1549 (1969)]

FEDOROVICH, G. V.
Electromagnetic Field Due to an Elevated Point Source of Long-Range Radiation in Air above a Conducting Plane. (T) Yu. A. Medvedev, B. M. Stepanov, and G. V. Fedorovich. 14, 654 (1969) [39, 875 (1969)]

FEDOTOV, A. P.
Prebunching in a High-Current Linear Ion Accelerator with a Low Injection Energy. (T) V. A. Enal'skii, V. V. Osipov, A. P. Fedotov, and B. K. Shembel'. 14, 1530 (1970) [39, 2034 (1969)]

FIALKOVSKII, A. T.
Diffraction of Plane Waves in an Open Resonator, Formed by Parallel Strips. (E) A. T. Fialkovskii. 14, 647 (1969) [39, 865 (1969)]

FISHKOVA, T. Ya.
Compensation of Spherical Aberration in a Stimatic Triplet of Short Quadrupole-Octupole Lenses. (T) T. Ya. Fishkova and E. V. Shpak. 14, 1006 (1970) [39, 1333 (1969)]

FLAKS, I. P.
Spectrum of Electrons Emitted in Atomic Collisions. (E) G. N. Ogurtsov, I. P. Flaks, and S. V. Avakyan. 14, 972 (1970) [39, 1293 (1969)]

FOGEL', Ya. M.
Investigation of Oxygen Adsorption on Tungsten by Secondary Ion-Ion Emission. (E) V. F. Rybalko, B. Ya. Kolot, and Ya. M. Fogel'. 14, 1290 (1970) [39, 1717 (1969)]

FOKIN, A. G.
Permittivity of Inhomogeneous Materials. (T) A. G. Fokin and T. D. Shermergor. 14, 984 (1970) [39, 1308 (1969)]

FOLIN, K. G.
Angle, Time and Frequency Characteristics of a Traveling-Wave Ruby Laser. (E) V. V. Antsiferov, G. V. Krivoshchekov, V. S. Pivtsov, and K. G. Folin. 14, 696 (1969) [39, 931 (1969)]

FOLOMEEV, A. V.
High-Output High-Coherence Diffraction-Limited Ruby Laser. (E) N. E. Korneev, Yu. I. Pavlov, and A. V. Folomeev. 14, 1699 (1970) [39, 2250 (1969)]

FOMENKO, G. P.
The Undulator Synchrotron. (E/T) G. P. Fomenko and Yu. G. Yushkov. 14, 1243 (1970) [39, 1658 (1969)]

FOMIN, I. D.
Determination of Local Plasma Parameters by Absorption Measurements on a Refracted Microwave Beam. (E) L. A. Dushin, V. A. Pitkin, A. I. Skibenko, and I. D. Fomin. 14, 348 (1969) [39, 471 (1969)]

FOMIN, V. M.
Exact Solutions of Certain Problems in Nonlinear Electrodynamics. (T) V. M. Fomin. 14, 447 (1969) [39, 593 (1969)]

FOTIADI, A. É.
Effect of a Longitudinal Magnetic Field on the Output of a CW Argon Laser With Brewster Windows. (E) A. É. Fotiadi and S. A. Fridrikhov. 14, 1292 (1970) [39, 1719 (1969)]

FRIDMAN, A. M.
Anomalous Diffusion in a Collisional Plasma in a Magnetic Field. (T) A. M. Fridman. 14, 484 (1969) [39, 644 (1969)]
Slow Nonelectrostatic Waves in an Inhomogeneous Plasma. (T) A. M. Fridman. 14, 1019 (1970) [39, 1350 (1969)]

FRIDRIKHOV, S. A.
Effect of a Longitudinal Magnetic Field on the Output of a CW Argon Laser with Brewster Windows. (E) A. É. Fotiadi and S. A. Fridrikhov. 14, 1292 (1970) [39, 1719 (1969)]
Polarization Effects in an He–Ne Laser Operating at $\lambda = 3.39\ \mu$ in a Magnetic Field. (E/T) D. K. Terekhin and S. A. Fridrikhov. 14, 1444 (1970) [39, 1919 (1969)]

FURSEI, G. N.
Transition from Field Emission to a Vacuum Arc. (E) G. N. Fursei and G. K. Kartsev. 14, 1442 (1970) [39, 1917 (1969)]

GABOVICH, M. D.
Plasma Flow from a Hot-Cathode Penning Discharge into a Vacuum Region with No Magnetic Field. (E) M. D. Gabovich, L. I. Romanyuk, and V. V. Ustalov. 14, 207 (1969) [39, 291 (1969)]

GALAKTIONOV, B. V.
Plasma Absorption of RF Energy Near the Lower Hybrid Frequency. (T) B. V. Galaktionov, V. E. Golant, A. D. Piliya, and O. N. Shcherbinin. 14, 721 (1969) [39, 960 (1969)]
Cyclotron Heating of Plasma Ions and Electrons by High-Frequency Fields. (E) B. V. Galaktionov, K. M. Novik, K. A. Podushnikova, B. P. Poloskin, and O. N. Shcherbinin. 14, 1059 (1970) [39, 1411 (1969)]

GALECHYAN, G. A.
Plasma Production in the Tornado Device. (E) G. A. Galechyan and B. P. Peregud. 14, 1272 (1970) [39, 1696 (1969)]

GALL', R. N.
Ion-Optical System of an Energy-Focusing Mass Spectrometer for Microimpurity Analysis. (T/E) R. N. Gall'. 14, 263 (1969) [39, 360 (1969)]

GASILEVICH, E. S.
Carbon Dioxide Dissociation in a CO_2 Laser. (E) E. S. Gasilevich, V. A. Ivanov, É. N. Lotkova, V. N. Ochkin, N. N. Sobolev, and N. G. Yaroslavskii. 14, 86 (1969) [39, 126 (1969)]

GAVRILOV, G. A.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]

GLASOV, B. V.
Cryogenically Cooled Channels as Differential Pumping Systems. (T/E) V. B. Yuferov, E. I. Skibenko, and B. V. Glasov. 14, 1577 (1970) [39, 2097 (1969)]

GLIKMAN, L. G.
Nonadiabatic Motion of a Charged Particle in a Uniform Time-Varying Magnetic Field. (T) L. G. Glikman and V. M. Kel'man. 14, 1151 (1970) [39, 1534 (1969)]

GOLANT, V. E.
Instability of an Afterglow Plasma in a Magnetic Field. (E) V. V. Bulanin, V. E. Golant, and A. P. Zhilinskii. 14, 712 (1969) [39, 948 (1969)]
Anomalous Absorption of Microwave Power by a Plasma at Supercritical Electron Densities. (E) V. E. Golant and M. V. Krivosheev. 14, 719 (1969) [39, 958 (1969)]
Plasma Absorption of RF Energy Near the Lower Hybrid Frequency. (T) B. V. Glaktionov, V. E. Golant, A. D. Piliya, and O. N. Shcherbinin. 14, 721 (1969) [39, 960 (1969)]

GOLIKOV, Yu. K.
Effective Charge Density and Electric Field at a Dielectric Surface. (T) Yu. K. Golikov, L. A. Serebrov, and K. G. Utkin. 14, 708 (1969) [39, 944 (1969)]

GOLOVANIVSKII, K. S.
Spatial Distributions in a Synthesized Plasma Beam. (E) K. S. Golovanivskii and A. I. Lushchik. 14, 1085 (1970) [39, 1446 (1969)]

GOL'TS, E. Ya.
Depolarization of a Plasma Stream in Constant and Variable Transverse Magnetic Fields. (E) E. Ya. Gol'ts and A. Z. Khodzhaev. 14, 741 (1969) [39, 988 (1969)]

GOLUBENTSEV, A. F.
Invariance of the Noise Parameters S and τ in Electron Beams of Varying Cross Section. (T) A. F. Golubentsev. 14, 1398 (1970) [39, 1859 (1969)]

GONCHAROV, A. A.
Two-Stream Ion Instability in a Plasma Traversed by an Ion Beam of Finite Dimensions. (T/E) A. A. Goncharov and G. S. Kirichenko. 14, 1492 (1970) [39, 1979 (1969)]

GONCHAROVA, G. I.
Cooling of a Dense Deuterium Plasma. (E/T) G. I. Goncharova. 14, 1387 (1970) [39, 1845 (1969)]

GONCHUKOV, S. A.
Line Shape and Dip Width in the Gain Curve of a He–Ne Laser at the Wavelength of 0.63 μ. (E/T) S. A. Gonchukov, G. A. Mikhnenko, E. D. Protsenko, and A. I. Troinikov. 14, 391 (1969) [39, 528 (1969)]

GORBUNOV, L. M.
Stability of a Magnetized Plasma in a Strong High-Frequency Field. (T) L. M. Gorbunov and V. P. Silin. 14, 1 (1969) [39, 3 (1969)]

GREBINSKII, A. S.
Interaction between Magnetoacoustic Waves in a Weakly Inhomogeneous Plasma. (T) A. S. Grebinskii. 14, 877 (1970) [39, 1166 (1969)]

GRECHIKHIN, L. I.
Investigation of Physical Processes in an Electrode-Discharge Shock Tube. (E) L. I. Grechikhin, B. B. Davydov, and L. Ya. Min'ko. 14, 518 (1969) [39, 689 (1969)]

GRIGOR'EV, V. N.
Limiting Velocity of Plasmoids in Electrodynamic Accelerators. (T) V. N. Grigor'ev. 14, 491 (1969) [39, 653 (1969)]

GRIGOR'EV, Yu. N.
Production of Nonmonochromatic Charged-Particle Beams Using Generalized Amplitude and Phase Functions. (T) Yu. N. Grigor'ev and V. V. Petrenko. 14, 1625 (1970) [39, 2154 (1969)]

GRIGOR'YANTS, V. G.
Hollow-Cathode Thermionic Converter Operating with a Low-Voltage Cesium Arc. (E) É. P. Busygin, V. G. Grigor'yants, and I. P. Yavor. 14, 1593 (1970) [39, 2119 (1969)]

GRISHAEV, I. A.
Beam Shaping System for a 2 GeV Electron Accelerator. (E/T) I. A. Grishaev, N. A. Kovalenko, V. I. Kolosov, and V. V. Petrenko. 14, 139 (1969) [39, 197 (1969)]
Possible Increase in Maximum Current in a Traveling-Wave Linear Accelerator. (E/T) V. A. Vishnyakov, I. A. Grishaev, V. M. Grizhko, A. I. Zykov, and L. A. Makhnenko. 14, 231 (1969) [39, 321 (1969)]
Frequency-Time Spectra of Pulsed Microwave Signals. (E) I. A. Grishaev, B. B. Mufel', and T. F. Nikitina. 14, 930 (1970) [39, 1237 (1969)]
Excitation of Hybrid Oscillations of a Relativistic Electron Beam in an Iris-Loaded Waveguide. (E) V. M. Grizhko, A. I. Zykov, I. A. Grishaev, and G. D. Kratskoi. 14, 1234 (1970) [39, 1646 (1969)]
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

GRIZHKO, V. M.
Possible Increase in Maximum Current in a Traveling-Wave Linear Accelerator. (E/T) V. A. Vishnyakov, I. A. Grishaev, V. M. Grizhko, A. I. Zykov, and L. A. Makhnenko. 14, 231 (1969) [39, 321 (1969)]
Excitation of Hybrid Oscillations of a Relativistic Electron Beam in an Iris-Loaded Waveguide. (E) V. M. Grizhko, A. I. Zykov, I. A. Grishaev, and G. D. Kratskoi. 14, 1234 (1970) [39, 1646 (1969)]
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

GULIDOV, S. S.
Measurement of Electron Energy Distribution in the Presence of Oscillations. (E) S. S. Gulidov, Yu. M. Kagan, N. B. Kolokolov, and V. M. Milenin. 14, 993 (1970) [39, 1321 (1969)]

GUREVICH, S. B.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]

GUROV, V. M.
Erosion Electrodynamic Plasma Accelerator with Inductive Energy Storage. (T) V. M. Gurov and N. A. Khizhnyak. 14, 338 (1969) [39, 458 (1969)]

GUSEV, O. B.
Diffusers in Holography. (E) O. B. Gusev and V. B. Konstantinov. 14, 258 (1969) [39, 354 (1969)]

GVERDTSITELI, I. G.
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]

IL'CHENKO, A. M.
Supersonic Gas Jet as a Vacuum Seal. (T/E) M. Yu. Bredikhin, A. M. Il'chenko, E. I. Skibenko, and V. B. Yuferov. 14, 1573 (1970) [39, 2092 (1969)]

IONOV, N. I.
Heat of Particle Desorption from a Metal Surface in an Electric Field. (T) N. I. Ionov. 14, 538 (1969) [39, 716 (1969)]
Surface Ionization, Evaporation, and Desorption of Ions in an Electric Field. (T) N. I. Ionov. 14, 542 (1969) [39, 721 (1969)]
Interaction of Water Vapor with Tungsten Surfaces. (E) V. N. Ageev, N. I. Ionov, and Yu. K. Ustinov. 14, 1009 (1970) [39, 1337 (1969)]
Determination of the Heat of Desorption of Potassium and Cesium Ions and Atoms on Tungsten, Molybdenum, and Tantalum Surfaces. (E) N. I. Ionov, E. N. Lebedeva, and Ts. S. Marinova. 14, 995 (1970) [39, 1323 (1969)]
Desorption of Oxygen from Tungsten. (E) V. N. Ageev and N. I. Ionov. 14, 1142 (1970) [39, 1523 (1969)]
Surface Ionization of Easily Ionized Atoms in the Threshold Temperature Region. (T/E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1423 (1970) [39, 1893 (1969)]
Surface-Ionization Kinetics of Cesium on Tungsten by the Flash Method. (E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1432 (1970) [39, 1905 (1969)]

IORDANISHVILI, E. K.
Enhancement of Thermoelectric Cooling in Nonstationary Operation. (T) V. P. Babin and E. K. Iordanishvili. 14, 293 (1969) [39, 399 (1969)]

IPATOV, V. A.
Investigation of Plasma Compression Using Microwave Reflection. (E) V. A. Ipatov, M. G. Kaganskii, S. G. Kalmykhov, and V. A. Ovsyannikov. 14, 479 (1969) [39, 638 (1969)]

IVAKIN, B. A
Determination of Potential Parameters from Viscosity. (E) B. A. Ivakin, P. E. Suemin, and A. S. Vakhlov. 14, 432 (1969) [39, 577 (1969)]

IVANOV, G. M.
Measurement of Charge Phase Distribution in a Traveling-Wave Linear Accelerator. (E) G. M. Ivanov, V. V. Pilipenko, L. A. Makhenko, and A. N. Dovbnya. 14, 369 (1969) [39, 500 (1969)]

IVANOV, I. N.
Stability of a Cylindrical Electron Layer in a Uniform Magnetic Field Surrounded by a Metal Shield. (T) I. N. Ivanov and V. G Makhan'kov. 14, 725 (1969) [39, 965 (1969)]
Effect of Shielding on the Negative Mass Effect. (T) I. N. Ivanov. 14, 732 (1969) [39, 976 (1969)]

IVANOV, S. I.
Possible Control of a Penning Discharge. (E) S. I. Ivanov. 14, 1277 (1970) [39, 1702 (1969)]

IVANOV, V. A.
Carbon Dioxide Dissociation in a CO_2 Laser. (E) E. S. Gasilevich, V. A. Ivanov, É. N. Lotkova, V. N. Ochkin, N. N. Sobolev, and N. G. Yaroslavskii. 14, 86 (1969) [39, 126 (1969)]

KABANOV, L. N.
Energy Analyzer for Charged Particles Focused by a Longitudinal Magnetic Field. (T) I. G. Kozlov and L. N. Kabanov. 14, 1280 (1970) [39, 1706 (1969)]

KAGAN, Yu. M.
Electron Energy Distribution in a High-Frequency Discharge. (E) S. D. Vagner, V. A. Virolainen, and Yu. M. Kagan. 14, 502 (1969) [39, 669 (1969)]
Measurement of Electron Energy Distribution in the Presence of Oscillations. (E) S. S. Gulidov, Yu. M. Kagan, N. B. Kolokolov, and V. M. Milenin. 14, 993 (1970) [39, 1321 (1969)]
Determination of the Electron Energy Distribution in a Plasma in the Presence of Oscillations. (T/E) Yu. M. Kagan, V. M. Milenin, N. K. Mitrofanov, and V. L. Smirnov. 14, 1497 (1970) [39, 1985 (1969)]
Influence of the Finite Length of a Cylindrical Probe on the Ion Current. (T) Yu. M. Kagan and V. I. Perel'. 14, 1689 (1970) [39, 2238 (1969)]

KAGANSKII, M. G.
Investigation of Plasma Compression Using Microwave Reflection. (E) V. A. Ipatov, M. G. Kaganskii, S. G. Kalmykhov, and V. A. Ovsyannikov. 14, 479 (1969) [39, 638 (1969)]

KALININ, V. G.
Effect of Cathode Surface State on the Dielectric Strength of Gases and Liquids. (E) Yu. L. Stankevich and V. G. Kalinin. 14, 949 (1970) [39, 1264 (1969)]

KALININ, Yu. A.
Resonator Losses in Solid-State Lasers. (E) Yu. A. Kalinin, A. A. Mak, and A. I. Stepanov. 14, 1255 (1970) [39, 1676 (1969)]

KALITKIN, N. N.
Approximate Theory for Amplification of Magnetic Fields. (T) N. N. Kalitkin and L. S. Tsareva. 14, 1050 (1970) [39, 1397 (1969)]

KALMYKHOV, S. G.
Investigation of Plasma Compression Using Microwave Reflection. (E) V. A. Ipatov, M. G. Kaganskii, S. G. Kalmykhov, and V. A. Ovsyannikov. 14, 479 (1969) [39, 638 (1969)]

KALMYKOV, A. A.
Rotation and Instability in Plasmoids Moving into a Magnetic Field. (E) A. A. Kalmykov and S. A. Trubchaninov. 14, 1379 (1970) [39, 1834 (1969)]

KAMINSKAYA, R. G.
Design of High-Q Cavities and Sections of Iris-Loaded Waveguides with Large Apertures for Particles. (T/E) A. N. Didenko and R. G. Kaminskaya. 14, 1527 (1970) [39, 2029 (1969)]

KAMINSKII, A. A.
Pyrotechnically Excited Quasi-CW Laser. (E) A. A. Kaminskii, A. I. Bodretsova, and S. I. Levikov. 14, 396 (1969) [39, 535 (1969)]

KAMYSHAN, V. V.
Experimental Investigation of Coupled Open Resonators. (E) V. A. Epishin, V. V. Kamyshan, and R. A. Valitov. 14, 716 (1969) [39, 954 (1969)]

KAN, Kh. S.
Thermionic Emission of Certain Refractory Materials and Possible Use As Cathodes in Gaseous Devices. (E) B. S. Kul'varskaya, A. I. Rekov, V. E. Serebrennikova, V. A. Nikolaeva, and Kh. S. Kan. 14, 122 (1969) [39, 175 (1969)]

KANTSEDAL, V. P.
Pulsed Arcs in Argon and Helium at Microwave Frequencies. (E) E. S. Borovik, V. I. Petrenko, R. V. Mitin, V. P. Kantsedal, and Yu. R. Knyazev. 14, 1063 (1970) [39, 1416 (1969)]

KAPLAN, V. B.
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]

KARABUT, É. K.
Continuous Generation of Coherent Radiation in a Discharge in Zn and Cd Vapors Obtained by Cathode Sputtering. (E) É. K. Karabut, V. S. Mikhalevskii, V. F. Rapakin, and M. F. Sém. 14, 1447 (1970) [39, 1923 (1969)]

KARLINER, M. M.
Phase Stability of an Intense Beam in a Relativistic Storage Ring. (T) M. M. Karliner, G. N. Ostreiko, and I. A. Shekhtman. 14, 235 (1969) [39, 326 (1969)]
Vibration of the Walls of a Cavity Resonator under Ponderomotive Forces in the Presence of Feedback. (T/E) M. M. Karliner, V. M. Petrov, and I. A. Shekhtman. 14, 1041 (1970) [39, 1383 (1969)]

KARNAUKHOV, I. M.
Polarized Negative Deuteron Injector for a Tandem Accelerator. (E) R. P. Slabospitskii, I. E. Kiselev, I. M. Karnaukhov, I. D. Lopatko, and A. Ya. Taranov. 14, 1129 (1970) [39, 1506 (1969)]

KARPENKO, I. K.
Effect of Toroidal Geometry on Magnetic Surfaces in a Stellarator. (T) I. S. Danilkin and I. K. Karpenko. 14, 1477 (1970) [39, 1959 (1969)]

KARPUKHIN, V. I.
Mass-Energy Measurements of Plasma Trapped in the Aperture of a Diverter in Injection through a Magnetic Slot. (E) V. M. Zalkind, V. G. Zykov, V. I. Karpukhin, N. I. Rudnev, and V. T. Tolok. 14, 925 (1970) [39, 1231 (1969)]

KARTSEV, G. K.
Transition from Field Emission to a Vacuum Arc. (E) G. N. Fursei and G. K. Kartsev. 14, 1442 (1970) [39, 1917 (1969)]

KASHPRUK, V. F.
Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]

KASIKOV, I. I.
Volt-Ampere Characteristics of a Low-Voltage Arc. (T/E) I. P. Stakhanov and I. I. Kasikov. 14, 1122 (1970) [39, 1496 (1969)]

KAZANSKII, G. S.
Calibration of Tracking Electrodes in Proton Synchrotrons. (E) G. S. Kazanskii, A. I. Mikhailov, A. P. Tsarenkov, and K. V. Chekhlov. 14, 363 (1969) [39, 492 (1969)]

KEL'MAN, V. M.
Nonadiabatic Motion of a Charged Particle in a Uniform Time-Varying Magnetic Field. (T) L. G. Glikman and V. M. Kel'man. 14, 1151 (1970) [39, 1534 (1969)]
Path of Charged Particles through Three-Electrode Telescope Deflection Systems. (E/T) B. V. Bobykin, V. M. Kel'man, Yu. A. Nevinnyi, and L. M. Sekunova. 14, 1463 (1970) [39, 1941 (1969)]

KHARCHENKO, I. F.
Distribution Function of an Electron Beam in a Beam-Plasma Discharge. (E) E. G. Shustin, V. P. Popovich, and I. F. Kharchenko. 14, 745 (1969) [39, 993 (1969)]
Structure of Two-Stream Oscillations Excited by an Electron Beam in a Plasma. (E) Yu. G. Yaremenko, V. M. Deev, S. M. Eremin, and I. F. Kharchenko. 14, 1158 (1970) [39, 1541 (1969)]
Detailed Structure of Beam-Plasma Instability. (E) V. A. Lavrovskii, V. M. Deev, S. A. Rogashkov, Yu. G. Yaremenko, and I. F. Kharchenko. 14, 1190 (1970) [39, 1586 (1969)]

KHAR'YUSOV, R. V.
Matching of a Microtron Resonator to a Waveguide. (T/E) I. M. Matora and R. V. Khar'yuzov. 14, 1506 (1970) [39, 1997 (1969)]

KHAZOV, L. D.
Anisotropic Stability of Calcite ($CaCO_3$) Against Laser Radiation. (E) A. A. Poplavskii and L. D. Khazov. 14, 299 (1969) [39, 407 (1969)]

KHIZHNYAK, N. A.
Study of an Oscillatory Electron-Ion Discharge in a Longitudinal Magnetic Field. (E) V. M. Rashkovan, V. P. Demutskii, and N. A. Khizhnyak. 14, 333 (1969) [39, 452 (1969)]
Erosion Electrodynamic Plasma Accelerator with Inductive Energy Storage. (T) V. M. Gurov and N. A. Khizhnyak. 14, 338 (1969) [39, 458 (1969)]
Possible Mechanism for the Formation of the Fast Component in an Electrodynamically Accelerated Plasma. (T) N. A. Khizhnyak. 14, 1534 (1970) [39, 2040 (1969)]

KHODZHAEV, A. Z.
Depolarization of a Plasma Stream in Constant and Variable Transverse Magnetic Fields. (E) E. Ya. Gol'ts and A. Z. Khodzhaev. 14, 741 (1969) [39, 988 (1969)]

KHOLOD, Yu. V.
Cryosorption Pumping in the Range 760 torr to Ultrahigh Vacuum. (E) P. M. Kobsev, Yu. V. Kholod, and V. B. Yuferov. 14, 424 (1969) [39, 567 (1969)]

KHOZHAINOV, A. I.
Transients in the Channel of a Conduction MHD Generator with a Nonlinear Inductance in the External Circuit. (T/E) A. I. Khozhainov. 14, 129 (1969) [39, 184 (1969)]

KHRABROV, V. A.
Pulsed Discharges in Dielectric Chambers. (E) A. M. Andrianov, A. I. Zemskov, V. V. Prut, and V. A. Khrabrov. 14, 318 (1969) [39, 433 (1969)]

KHUDYAKOVA, L. N.
X Rays from Pulsed Discharges in Air. (E) L. V. Tarasova and L. N. Khudyakova. 14, 1148 (1970) [39, 1530 (1969)]

KIRICHENKO, G. S.
Two-Stream Ion Instability in a Plasma Traversed by an Ion Beam of Finite Dimensions. (T/E) A. A. Goncharov and G. S. Kirichenko. 14, 1492 (1970) [39, 1979 (1969)]

KIRII, A. Yu.
Plasma Transport Equations. (T) A. Yu. Kirii and V. P. Silin. 14, 583 (1969) [39, 773 (1969)]

KIRILENKO, V. M.
Time for Production of a Discharge. (T) V. M. Kirilenko. 14, 556 (1969) [39, 738 (1969)]

KISELEV, A. V.
Transient Characteristics of a Spark Discharge in a Gas. (E) A. V. Kiselev. 14, 1083 (1970) [39, 1443 (1969)]

KISELEV, I. E.
Polarized Negative Deuteron Injector for a Tandem Accelerator. (E) R. P. Slabospitskii, I. E. Kiselev, I. M. Karnaukhov, I. D. Lopatko, and A. Ya. Taranov. 14, 1129 (1970) [39, 1506 (1969)]

KIVSHIK, A. F.
Experimental Investigation of an RF Discharge Used as a Plasma Waveguide. (E) A. M. Egorov, A. F. Kivshik, and L. I. Bolotin. 14, 765 (1969) [39, 1020 (1969)]

KLYARFEL'D, B. N.
Metal Sputtering by the Cathode Spot of a Vacuum Arc. (E) B. N. Klyarfel'd, N. A. Neretina, and N. N. Druzhinina. 14, 796 (1969) [39, 1061 (1969)]
Photoeffect in Electron Emission from the Cathode in a Glow Discharge in Kr and Xe. (T/E) B. N. Klyarfel'd and B. I. Moskalev. 14, 800 (1969) [39, 1066 (1969)]
Plasma Efficiency Coefficient δ in an Overdense Glow Discharge. (E) L. Yu. Abramovich, B. N. Klyarfel'd, and Yu. N. Nastich. 14, 939 (1970) [39, 1251 (1969)]

KNYAZEV, Yu. R.
Pulsed Arcs in Argon and Helium at Microwave Frequencies. (E) E. S. Borovik, V. I. Petrenko, R. V. Mitin, V. P. Kantsedal, and Yu. R. Knyazev. 14, 1063 (1970) [39, 1416 (1969)]
High-Current Pulsed Hydrogen Arc at Pressures up to 400 Atmospheres. (E) V. I. Petrenko, R. V. Mitin, Yu. R. Knyazev, and A. V. Zvyagintsev. 14, 1373 (1970) [39, 1827 (1969)]

KOBSEV, P. M.
Cryosorption Pumping in the Range 760 torr to Ultrahigh Vacuum. (E) P. M. Kobsev, Yu. V. Kholod, and V. B. Yuferov. 14, 424 (1969) [39, 567 (1969)]
Pumping of Helium by Condensed Layers of Gases in the Pressure Range 10^{-3} to 10^{-13} torr. (E) V. B. Yuferov and P. M. Kobsev. 14, 427 (1969) [39, 571 (1969)]
Investigation of Cryosorption Extraction of Helium, Hydrogen, and Deuterium by Layers of Condensed Gases. (E) V. B. Yuferov and P. M. Kobsev. 14, 1261 (1970) [39, 1683 (1969)]

KOGAN, E. Ya.
Low-Frequency Hydrodynamic Instability of a Current-Carrying Inhomogeneous Plasma. (T) I. S. Baikov, E. Ya. Kogan, S. S. Moiseev, and A. A. Rukhadze. 14, 163 (1969) [39, 230 (1969)]

KOKORIN, A. M.
Accelerator Output Devices. 1. Achromatic Magnetic Deflection Systems. (T) V. P. Belov and A. M. Kokorin. 14, 1520 (1970) [39, 2018 (1969)]

KOLESNIKOV, A. A.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]

KOLESNIKOV, P. M.
Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]
Interaction of Simple Electromagnetic Waves in a Nonlinear Saturable Medium. (T) P. M. Kolesnikov. 14, 1311 (1970) [39, 1742 (1969)]
Effect of Ionization and Recombination on the Electrodynamic Acceleration of a Plasma. (T) P. M. Kolesnikov. 14, 1316 (1970) [39, 1750 (1969)]

KOLOKOLOV, N. B.
Measurement of Electron Energy Distribution in the Presence of Oscillations. (E) S. S. Gulidov, Yu. M. Kagan, N. B. Kolokolov, and V. M. Milenin. 14, 993 (1970) [39, 1321 (1969)]

KOLOSOV, V. I.
Beam Shaping System for a 2 GeV Electron Accelerator. (E/T) I. A. Grishaev, N. A. Kovalenko, V. I. Kolosov, and V. V. Petrenko. 14, 139 (1969) [39, 197 (1969)]

KOLOT, B. Ya.
Investigation of Oxygen Adsorption on Tungsten by Secondary Ion-Ion Emission. (E) V. F. Rybalko, B. Ya. Kolot, and Ya. M. Fogel'. 14, 1290 (1970) [39, 1717 (1969)]

KOMEL'KOV, V. S.
Braking and Purification of a Plasma Jet by a Rapidly Increasing Magnetic Field. (E/T) V. I. Vasil'ev, V. S. Komel'kov, and S. S. Tserevitinov. 14, 322 (1969) [39, 438 (1969)]

KONDRATENKO, A. N.
Nonlinear Interaction of Surface Waves in Nonisothermal Plasma. (T) A. N. Kondratenko and V. G. Shaptala. 14, 1681 (1970) [39, 2229 (1969)]

KONDRATENKO, V. V.
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

KONONENKO, Yu. G.
Chain Mechanism for the Development of an Arc Discharge in Crossed Electric and Magnetic Fields. (E) Yu. G. Kononenko, O. Ya. Savchenko, and E. V. Shun'ko. 14, 191 (1969) [39, 269 (1969)]

KONONOV, B. P.
Stress Tensor in a Dispersive Medium. (T) B. P. Kononov. 14, 759 (1969) [39, 1011 (1969)]

KONONOV, V. I.
Divergence of Ion Beams with Finite Phase Volume. (T) V. V. Vecheslavov and V. I. Kononov. 14, 702 (1969) [39, 938 (1969)]
Ion-Optical Matching by a Random-Search Method. (E) V. V. Vecheslavov and V. I. Kononov. 14, 907 (1969) [39, 1209 (1969)]

KONOVALOV, N. D.
The Emission Properties of Tungsten–Rhenium Alloys. (E) N. D. Konovalov, V. A. Kuznetsov, and B. M. Tsarev. 14, 834 (1969) [39, 1110 (1969)]

KONSTANTINOV, A. B.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]

KONSTANTINOV, B. P.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]

KONSTANTINOV, V. B.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]
Diffusers in Holography. (E) O. B. Gusev and V. B. Konstantinov. 14, 258 (1969) [39, 354 (1969)]

KORETSKII, Ya. P.
Evaluation of the Effect of Electromagnetic Forces on the Channel of a Constricted Induction Discharge. (E) B. M. Dymshits and Ya. P. Koretskii. 14, 779 (1969) [39, 1039 (1969)]

KORNEEV, N. E.
High-Output High-Coherence Diffraction-Limited Ruby Laser. (E) N. E. Korneev, Yu. I. Pavlov, and A. V. Folomeev. 14, 1699 (1970) [39, 2250 (1969)]

KOROBOVA, I. L.
Current-Voltage Characteristics of a Thermionic Converter at High Current Densities. Ionization Equilibrium in the Plasma of the Low-Voltage Arc. (T) F. G. Baksht, I. L. Korobova, and B. Ya. Moizhes. 14, 300 (1969) [39, 408 (1969)]

KOROLEV, L. E.
Design Parameters of an Ion-Optical System for Transport and Analysis of a Beam Extracted from the 240-Centimeter Isochronous Cyclotron. (T) Yu. G. Basargin and L. E. Korolev. 14, 1109 (1970) [39, 1478 (1969)]

KOROTUN, L. I.
Interaction of a Cylindrical Electromagnetic Wave and a Radial Electron Stream. (T) L. I. Korotun. 14, 1037 (1970) [39, 1377 (1969)]

KORSHUNOV, G. S.
Spark Current and Voltage in Nanosecond Breakdown of a Gas Gap. (E) G. A. Mesyats, V. V. Kremnev, G. S. Korshunov, and Yu. B. Yankelevich. 14, 49 (1969) [39, 75 (1969)]
Reproducibility of Delay Time for Breakdown of High-Pressure Triggered Spark Gaps. (E) G. S. Korshunov, N. S. Rudenko, and V. I. Tsvetkov. 14, 1074 (1970) [39, 1430 (1969)]

KOSOV, N. D.
Determination of the Amount of Gas Transported by Hydrodynamic Flow in Interdiffusion. (E) N. D. Kosov and Z. I. Novosad. 14, 435 (1969) [39, 582 (1969)]
Thermal-Diffusion Pressure Effect. (E/T) N. D. Kosov, A. F. Bogatyrev, and L. I. Kurlapov. 14, 841 (1969) [39, 1119 (1969)]

KOSSYI, I. A.
Plasma Induction Source with Reduced Impurity Content. II. (E) I. A. Kossyi and I. S. Shpigel'. 14, 486 (1969) [39, 647 (1969)]

KOTENKO, V. G.
Design of Cooled Solenoids for the Production of Pulsed Magnetic Fields. (E/T) V. G. Kotenko and A. G. Limar'. 14, 290 (1969) [39, 395 (1969)]

KOTOUSOV, L. S.
Determination of Excess Heat Functions of Binary Gas Mixtures from Temperature Effects in Steady-State Interdiffusion. (T/E) L. S. Kotousov and V. V. Baranyuk. 14, 273 (1969) [39, 372 (1969)]
Excess Thermodynamic Potential of Vapor-Gas Mixtures near 1 atm at 300-400°K. (T) L. S. Kotousov. 14, 1003 (1970) [39, 1330 (1969)]

KOTSARENKO, N. Ya.
Incoherent Reflection of Electromagnetic Waves from a Plasma. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 27 (1969) [39, 42 (1969)]
Interaction of a Rotating Electron Beam with Asymmetric Modes in a Magnetized-Plasma Waveguide. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 439 (1969) [39, 587 (1969)]
Absolute and Convective Instability Criterion for Parametrically Interacting Waves. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 714 (1969) [39, 951 (1969)]
Propagation of Surface Waves in a Magnetoactive Plasma. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 853 (1969) [39, 1132 (1969)]

KOVALENKO, N. A.
Beam Shaping System for a 2 GeV Electron Accelerator. (E/T) I. A. Grishaev, N. A. Kovalenko, V. I. Kolosov, and V. V. Petrenko. 14, 139 (1969) [39, 197 (1969)]

KOVTUN, R. I.
Adiabatic Approximation in Slow Motion of Charges in a Spatially Periodic Magnetic Field. (T) R. I. Kovtun. 14, 911 (1970) [39, 1215 (1969)]

KOZAK, O. V.
Investigation of a Confined Hot-Cathode Discharge in a Magnetic Field. (E/T) O. V. Kozak and L. L. Pasechnik. 14, 1643 (1970) [39, 2177 (1969)]

KOZLOV, I. G.
Energy Analyzer for Charged Particles Focused by a Longitudinal Magnetic Field. (T) I. G. Kozlov and L. N. Kabanov. 14, 1280 (1970) [39, 1706 (1969)]

KOZYREV, Yu. P.
Energy Distribution of the Ions Produced by a Large Laser Pulse on a Solid Target. (E/T) Yu. A. Bykovskii, N. N. Degtyarenko, V. I. Dymovich, V. F. Elesin, Yu. P. Kozyrev, B. I. Nikolaev, S. V. Ryzhinkh, and S. M. Sil'nov. 14, 1269 (1970) [39, 1694 (1969)]

KRAMSKOI, G. D.
Measurement of the Phase Spectrum of Accelerated Electrons Using a High-Frequency Separator. (E/T) A. I. Zvkov, G. D. Kramskoi, and E. K. Ostrovskii. 14, 756 (1969) [39, 1007 (1969)]
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

KRASNONOSEN'KIKH, P. P.
Operational Results with the 1.5 GeV Synchrotron at the Tomsk Polytechnical Institute. (E) V. A. Vizir', P. P. Krasnonosen'kikh, N. A. Lashuk, I. P. Chuchalin, and P. M. Shchanin. 14, 736 (1969) [39, 982 (1969)]

KRATSKOI, G. D.
Excitation of Hybrid Oscillations of a Relativistic Electron Beam in an Iris-Loaded Waveguide. (E) V. M. Grizhko, A. I. Zykov, L. A. Grishaev, and G. D. Kratskoi. 14, 1234 (1970) [39, 1646 (1969)]

KREINDEL', Yu. E.
Hollow Cathode in a Low-Pressure Penning Discharge. (E) G. G. Vasil'eva and Yu. E. Kreindel'. 14, 213 (1969) [39, 298 (1969)]

KREMNEV, V. V.
Spark Current and Voltage in Nanosecond Breakdown of a Gas Gap. (E) G. A. Mesyats, V. V. Kremnev, G. S. Korshunov, and Yu. B. Yankelevich. 14, 49 (1969) [39, 75 (1969)]

KRIVORUCHKO, S. M.
Lithium Yield from a Supersonic Lithium-Vapor Jet. (E) B. A. D'yachkov, S. M. Krivoruchko, and V. Yu. Petrusha. 14, 686 (1969) [39, 918 (1969)]

KRIVOSHCHENKOV, V. G.
Angle, Time and Frequency Characteristics of a Traveling-Wave Ruby Laser. (E) V. V. Antsiferov, G. V. Krivoshchenkov, V. S. Pivtsov, and K. G. Folin. 14, 696 (1969) [39, 931 (1969)]

KRIVOSHEEV, M. V.
Interaction of Microwaves with a Positive Column in a Waveguide. (E) M. V. Krivosheev. 14, 613 (1969) [39, 816 (1969)]
Anomalous Absorption of Microwave Power by a Plasma at Supercritical Electron Densities. (E) V. E. Golant and M. V. Krivosheev. 14, 719 (1969) [39, 958 (1969)]

KROKHIN, O. N.
Gas-Dynamic Processes in Irradiation of Solids. (E/T) Yu. V. Afanas'ev, N. G. Basov, O. N. Krokhin, N. V. Morachevskii, and G. V. Sklizkov. 14, 669 (1969) [39, 894 (1969)]

KROPOTKIN, A. P.
Induced Scattering of Quasi-Longitudinal Cyclotron Waves in a Plasma. (T) A. P. Kropotkin and N. V. Sholokhov. 14, 472 (1969) [39, 628 (1969)]

KUCHEROV, R. Ya.
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]

KUL'VARSKAYA, B. S.
Thermionic Emission of Certain Refractory Materials and Possible Use As Cathodes in Gaseous Devices. (E) B. S. Kul'varskaya, A. I. Rekov, V. E. Serebrennikova, V. A. Nikolaeva, and Kh. S. Kan. 14, 122 (1969) [39, 175 (1969)]
Evaporation Rates of Carbide Thermionic Cathodes and Estimates of Operating Temperatures. (E) B. S. Kul'varskaya. 14, 548 (1969) [39, 728 (1969)]

KURLAPOV, L. I.
Thermal-Diffusion Pressure Effect. (E/T) N. D. Kosov, A. F. Bogatyrev, and L. I. Kurlapov. 14, 841 (1969) [39, 1119 (1969)]

KURSANOV, Yu. V.
Emission of Energetic Ions from a Penning Discharge in an Inhomogeneous Magnetic Field. (E) R. A. Demirkhanov, Yu. V. Kursanov, and L. P. Skripal'. 14, 500 (1969) [39, 666 (1969)]

KUTSENKO, É. N.
Effect of Adsorbent Temperature on Probability of Desorption of O^+ Ions by Slow Electrons. (E) É. N. Kutsenko. 14, 706 (1969) [39, 942 (1969)]
Desorption, by Slow-Electron Bombardment, of Ions and Neutral Molecules from Gases Adsorbed on the Surface of Tungsten. (E) V. N. Ageev and É. N. Kutsenko. 14, 958 (1970) [39, 1275 (1969)]

KUZEMA, A. S.
Novel Triplet of Electrostatic Quadrupole-Octupole Lenses with Corrected Spherical Aberration. (E) E. V. Shpak, S. Ya. Yavor, O. R. Savin, and A. S. Kuzema. 14, 1294 (1970) [39, 1720 (1969)]

KUZNETSOV, V. A.
The Emission Properties of Tungsten–Rhenium Alloys. (E) N. D. Konovalov, V. A. Kuznetsov, and B. M. Tsarev. 14, 834 (1969) [39, 1110 (1969)]

KUZNETSOV, V. S.
High-Current Electron Beam in a Linear Induction Accelerator. (T) Yu. P. Vakhrushin and V. S. Kuznetsov. 14, 374 (1969) [39, 506 (1969)]

KUZNETSOV, Yu. K.
Effect of Low-Frequency Oscillations on the Cyclotron Radiation of a Plasma Column. (E) Yu. K. Kuznetsov, O. S. Pavlichenko, and V. N. Starikov. 14, 1184 (1970) [39, 1578 (1969)]

KUZOVNIKOV, A. A.
Plasma Polarization in the Low-Frequency Region. (E) A. F. Aleksandrov, A. A. Kuzovnikov, V. S. Sviridkina, and V. V. Tarasova. 14, 1628 (1970) [39, 2158 (1969)]

LARIONOV, L. V.
Phase Transitions of Potassium Chloride and Its Alloys with Rubidium Chloride at High Pressures. (E) L. D. Livshits, Yu. N. Ryabinin, and L. V. Larionov. 14, 837 (1969) [39, 1115 (1969)]

LASHUK, N. A.
Operational Results with the 1.5 GeV Synchrotron at the Tomsk Polytechnical Institute. (E) V. A. Vizir', P. P. Krasnonosen'kikh, N. A. Lashuk, I. P. Chuchalin, and P. M. Shchanin. 14, 736 (1969) [39, 982 (1969)]

LAVRENT'EV, G. Ya.
Gravitational Wave Detector with a Superconducting Resonance Element. (T) G. Ya. Lavrent'ev. 14, 989 (1970) [39, 1316 (1969)]

LAVROVSKII, V. A.
Detailed Structure of Beam-Plasma Instability. (E) V. A. Lavrovskii, V. M. Deev, S. A. Rogashkov, Yu. G. Yaremenko, and I. F. Kharchenko. 14, 1190 (1970) [39, 1586 (1969)]

LEBEDEV, M. A.
Spectroscopic Investigation of a Low-Voltage Low-Pressure Cesium Arc. (E) M. A. Lebedev, S. A. Maev, G. G. Morozova, and I. I. Smirenkina. 14, 505 (1969) [39, 673 (1969)]

LEBEDEVA, E. N.
Determination of the Heat of Desorption of Potassium and Cesium Ions and Atoms on Tungsten, Molybdenum, and Tantalum Surfaces. (E) N. I. Ionov, E. N. Lebedeva, and Ts. S. Marinova. 14, 995 (1970) [39, 1323 (1969)]
Surface Ionization of Easily Ionized Atoms in the Threshold Temperature Region. (T/E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1423 (1970) [39, 1893 (1969)]
Surface-Ionization Kinetics of Cesium on Tungsten by the Flash Method. (E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1432 (1970) [39, 1905 (1969)]

LEBEDEVA, V. V.
Effect of Spatial Inhomogeneity of the Optical Field on Laser Gain Saturation. (T) A. I. Odintsov, V. V. Lebedeva, and I. V. Shafranovskaya. 14, 657 (1969) [39, 879 (1969)]

LEVIKOV, S. I.
Pyrotechnically Excited Quasi-CW Laser. (E) A. A. Kaminskii, A. I. Bodretsova, and S. I. Levikov. 14, 396 (1969) [39, 535 (1969)]

LEVIN, M. L.
Multipole Degeneracy of the Eingenfrequencies of a Plasmoid and Its Effect on Resonant Radiation-Pressure. (T) M. L. Levin and R. Z. Muratov. 14, 1285 (1970) [39, 1712 (1969)]

LEVITSKII, S. M.
Interaction of Microwave Oscillations and Low-Frequency Oscillations in a Beam-Plasma System. (E) S. M. Levitskii, V. Z. Shapoval, and I. P. Shashurin. 14, 343 (1969) [39, 465 (1969)]

LIKHACHEV, V. M.
Plasma Diagnostics in a Pinch-Discharge Laser. (E/T) A. N. Vasil'eva, V. M. Likhachev, and V. M. Sutovskii. 14, 246 (1969) [39, 341 (1969)]

LIMAR', A. G.
Design of Cooled Solenoids for the Production of Pulsed Magnetic Fields. (E/T) V. G. Kotenko and A. G. Limar'. 14, 290 (1969) [39, 395 (1969)]
Intense Pulsed Magnetic Fields in Reinforced Multiturn Coils. (E/T) E. S. Borovik, A. G. Limar', and Yu. A. Litvinenko. 14, 510 (1969) [39, 678 (1969)]

LISACHENKO, A. A.
Photodesorption of OH Radicals from a ZnO Surface Containing Adsorbed Water. (E) A. A. Lisachenko and F. I. Vilesov. 14, 442 (1969) [39, 590 (1969)]

LISTOVETS, V. S.
Stress Distribution in Transparent Objects by Holographic Interferometry. (E) A. N. Zaidel', V. S. Listovets, and Yu. I. Ostrovskii. 14, 1678 (1970) [39, 2225 (1969)]

LITVAK, L. N.
Work Function of Molybdenum-Rhenium Alloys. (E) E. M. Savitskii, I. V. Burov, and L. N. Litvak. 14, 535 (1969) [39, 713 (1969)]

LITVINENKO, Yu. A.
Intense Pulsed Magnetic Fields in Reinforced Multiturn Coils. (E/T) E. S. Borovik, A. G. Limar', and Yu. A. Litvinenko. 14, 510 (1969) [39, 678 (1969)]

LIVSHITS, L. D.
Phase Transitions of Potassium Chloride and Its Alloys with Rubidium Chloride at High Pressures. (E) L. D. Livshits, Yu. N. Ryabinin, and L. V. Larionov. 14, 837 (1969) [39, 1115 (1969)]

LOMINO, N. S.
Plasma Stream in an Inhomogeneous Transverse Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, V. G. Padalka, B. N. Rutkevich, and K. D. Sinel'nikov. 14, 16 (1969) [39, 27 (1969)]
Tangential Injection of Plasma into a Toroidal Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, and V. G. Padalka. 14, 327 (1969) [39, 444 (1969)]

LOPATKO, I. D.
Polarized Negative Deuteron Injector for a Tandem Accelerator. (E) R. P. Slabospitskii, I. E. Kiselev, I. M. Karnaukhov, I. D. Lopatko, and A. Ya. Taranov. 14, 1129 (1970) [39, 1506 (1969)]

LOSEV, N. F.
Selective Excitation of X-Ray Fluorescence by Mixed Primary Radiation. (T/E) G. V. Pavlinskii and N. F. Losev. 14, 1247 (1970) [39, 1664 (1969)]

LOTKOVA, É. N.
Carbon Dioxide Dissociation in a CO_2 Laser. (E) E. S. Gasilevich, V. A. Ivanov, É. N. Lotkova, V. N. Ochkin, N. N. Sobolev, and N. G. Yaroslavskii. 14, 86 (1969) [39, 126 (1969)]

LOVETSKII, E. E.
Surface Drift Oscillations of a Plasma. (T/E) E. E. Lovetskii and V. P. Silakov. 14, 1283 (1970) [39, 1709 (1969)]

LUCHININOV, V. S.
Radio Sounding of Glacier Inhomogeneities. (E) V. N. Rudakov and V. S. Luchininov. 14, 751 (1969) [39, 1001 (1969)]

LUSHCHIK, A. I.
Spatial Distribution in a Synthesized Plasma Beam. (E) K. S. Golovanivskii and A. I. Lushchik. 14, 1085 (1970) [39, 1446 (1969)]

LYUBIMOV, V. V.
Mode Deformation in Open Resonators with Plane Mirrors. (T) Yu. A. Anan'ev, V. V. Lyubimov, and I. B. Orlova. 14, 1408 (1970) [39, 1872 (1969)]
Effect of Misalignment of Resonator Mirrors on Losses and Angular Distribution. (T) V. V. Lyubimov and I. B. Orlova. 14, 1648 (1970) [39, 2183 (1969)]

MAEV, S. A.
Spectroscopic Investigation of a Low-Voltage Low-Pressure Cesium Arc. (E) M. A. Lebedev, S. A. Maev, G. G. Morozova, and I. I. Smirenkina. 14, 505 (1969) [39, 673 (1969)]

MAGDICH, L. N.
Transient Characteristics of a Laser with Modulated Resonator Parameters. (T) L. N. Magdich. 14, 383 (1969) [39, 518 (1969)]

MAK, A. A.
Resonator Losses in Solid-State Lasers. (E) Yu. A. Kalinin, A. A. Mak, and A. I. Stepanov. 14, 1255 (1970) [39, 1676 (1969)]
Amplification of Short Optical Pulses in Neodymium Glass. (T/E) A. A. Mak, B. G. Malinin, V. A. Novikov, D. S. Prilezhaev, A. I. Stepanov, and V. I. Ustyugov. 14, 1418 (1970) [39, 1886 (1969)]

MAKAROV, K. A.
A Method for the Simultaneous Investigation of the Transmission, Reflection, and Absorption of Inert Gas Ions in Thin Solid Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 403 (1969) [39, 543 (1969)]
Interaction of He^+ Ions with Certain Metals. (E) A. Ya. Vyatskin, V. V. Alekseev, and K. A. Makarov. 14, 408 (1969) [39, 549 (1969)]
Investigation of Transmission, Reflection, and Absorption of He^+ Ions in Thin Semiconductor Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 413 (1969) [39, 554 (1969)]

MAKHAN'KOV, V. G.
Nonlinear Interaction of Electrostatic Waves with Ion-Ion Collisions in a Turbulent Plasma. (T) V. G. Makhan'kov and V. N. Tsytovich. 14, 594 (1969) [39, 788 (1969)]

Stability of a Cylindrical Electron Layer in a Uniform Magnetic Field Surrounded by a Metal Shield. (T) I. N. Ivanov and V. G. Makhan'kov. 14, 725 (1969) [39, 965 (1969)]
Effect of Ion-Ion Collisions on the Nonlinear Interaction of Plasma Waves. (T) V. G. Makhan'kov and B. G. Shchinov. 14, 1343 (1970) [39, 1786 (1969)]
Nonlinear Theory of the Hydrodynamic Two-Stream Instability. II. (T) V. G. Makhan'kov and B. G. Shchinov. 14, 1349 (1970) [39, 1795 (1969)]

MAKHNENKO, L. A.
Possible Increase in Maximum Current in a Traveling-Wave Linear Accelerator. (E/T) V. A. Vishnyakov, I. A. Grishaev, V. M. Grizhko, A. I. Zykov, and L. A. Makhnenko. 14, 231 (1969) [39, 321 (1969)]
Measurement of Charge Phase Distribution in a Traveling-Wave Linear Accelerator. (E) G. M. Ivanov, V. V. Pilipenko, L. A. Makhnenko, and A. N. Dovbnya. 14, 369 (1969) [39, 500 (1969)]

MAKHROV, V. F.
Effect of Discharge Fluctuations on the Output of a Laser. (E) A. A. Zaitsev, V. F. Makhrov, I. A. Savchenko, and B. N. Shvilkin. 14, 575 (1969) [39, 764 (1969)]

MAKSIMOV, A. I.
Excitation and Ionization in a Helium Microwave Discharge. (E/T) A. I. Maksimov. 14, 1500 (1970) [39, 1989 (1969)]

MAKSIMOV, V. A.
Investigation of the Electronic Component of the Thermal Flux under Arc Conditions in a Thermionic Converter. (E) V. A. Maksimov and A. S. Titkov. 14, 115 (1969) [39, 166 (1969)]

MALININ, B. G.
Amplification of Short Optical Pulses in Neodymium Glass. (T/E) A. A. Mak, B. G. Malinin, V. A. Novikov, D. S. Prilezhaev, A. I. Stepanov, and V. I. Ustyugov. 14, 1418 (1970) [39, 1886 (1969)]

MALKIN, O. A.
Two-Step Development of a Current Pulse between Plane Electrodes. (E) O. A. Malkin and E. S. Trekhov. 14, 816 (1969) [39, 1086 (1969)]
Precursor Ionization in Front of a Moving Plasmoid. (E) O. A. Malkin and A. K. Musin. 14, 821 (1969) [39, 1092 (1969)]

MALYSHEV, G. M.
Investigation of an Electric Discharge Across a Laser Spark. (E) V. I. Vladimirov, G. M. Malyshev, G. T. Razdobarin, and V. V. Semenov. 14, 677 (1969) [39, 906 (1969)]

MALYSHEV, V. I.
Kinetics of the Free-Oscillation Spectrum of a Ruby Laser without Mode Discrimination. (E) V. I. Malyshev, A. S. Markin, and A. A. Sychev. 14, 241 (1969) [39, 334 (1969)]

MAMAEV, Yu. A.
Coincidence Method for Studying Charge-Exchange in Proton-Inert Gas Interactions. (E) V. V. Afrosimov, Yu. A. Mamaev, M. N. Panov, and N. V. Federenko. 14, 109 (1969) [39, 159 (1969)]

MARINOVA, Ts. S.
Determination of the Heat of Desorption of Potassium and Cesium Ions and Atoms on Tungsten, Molybdenum, and Tantalum Surfaces. (E) N. I. Ionov, E. N. Lebedeva, and Ts. S. Marinova. 14, 995 (1970) [39, 1323 (1969)]

MARKEEV, B. M.
Oscillations of a Weakly Ionized Collisional Plasma. (T) B. M. Markeev. 14, 307 (1969) [39, 417 (1969)]

MARKIN, A. S.
Kinetics of the Free-Oscillation Spectrum of a Ruby Laser without Mode Discrimination. (E) V. I. Malyshev, A. S. Markin, and A. S. Sychev. 14, 241 (1969) [39, 334 (1969)]

MATORA, I. M.
Theory of a Linear Induction Accelerator. (T) I. M. Matora. 14, 134 (1969) [39, 190 (1969)]
Matching of a Microtron Resonator to a Waveguide. (T/E) I. M. Matora and R. V. Khar'yuzov. 14, 1506 (1970) [39, 1997 (1969)]

MAZURENKO, Yu. T.
Transport Properties of Gaseous Saturated Hydrocarbons. (T) Yu. T. Mazurenko. 14, 566 (1969) [39, 752 (1969)]

MEDVEDEV, Yu. A.
Electromagnetic Field Due to an Elevated Point Source of Long-Range Radiation in Air above a Conducting Plane. (T) Yu. A. Medvedev, B. M. Stepanov, and G. V. Fedorovich. 14, 654 (1969) [39, 875 (1969)]
Resonance Effects with Absorption. (T) Yu. A. Medvedev and V. A. Sosnin. 14, 1225 (1970) [39, 1634 (1969)]

MERGELYAN, O. S.
Field of a Charged Particle Moving along the Axis of an Optically Active Cylinder. (T) O. S. Mergelyan. 14, 1604 (1970) [39, 2125 (1969)]
Certain Properties of Transition Radiation in Uniaxial Crystals. (T) O. S. Mergelyan. 14, 1673 (1970) [39, 2220 (1969)]

MESYATS, G. A.
Spark Current and Voltage in Nanosecond Breakdown of a Gas Gap. (E) G. A. Mesyats, V. V. Kremnev, G. S. Korshunov, and Yu. B. Yankelevich. 14, 49 (1969) [39, 75 (1969)]

METELITSYN, V. A.
Gas Motion behind a Strong Shock Front with Radiation Losses. (T) V. A. Metelitsyn. 14, 1670 (1970) [39, 2215 (1969)]

METRIKIN, R. A.
Diffraction of a Plane Electromagnetic Wave on an Ideally Conducting Plane with a Circular Aperture. (T) Yu. V. Pimenov and R. A. Metrikin. 14, 1451 (1970) [39, 1925 (1969)]

MIKHAILOV, A. I.
Calibration of Tracking Electrodes in Proton Synchrotrons. (E) G. S. Kazanskii, A. I. Mikhailov, A. P. Tsarenkov, and K. V. Chekhlov. 14, 363 (1969) [39, 492 (1969)]

MIKHALEVSKII, V. S.
Continuous Generation of Coherent Radiation in a Discharge in Zn and Cd Vapors Obtained by Cathode Sputtering. (E) É. K. Karabut, V. S. Mikhalevskii, V. F. Papakin, and M. F. Sém. 14, 1447 (1970) [39, 1923 (1969)]

MIKHNENKO, G. A.
Line Shape and Dip Width in the Gain Curve of a He–Ne Laser at the Wavelength of 0.63 μ. (E/T) S. A. Gonchukov, G. A. Mikhnenko, E. D. Protsenko, and A. I. Troinkov. 14, 391 (1969) [39, 528 (1969)]

MILENIN, V. M.
Measurement of Electron Energy Distribution in the Presence of Oscillations. (E) S. S. Gulidov, Yu. M. Kagan, N. B. Kolokolov, and V. M. Milenin. 14, 993 (1970) [39, 1321 (1969)]
Determination of the Electron Energy Distribution in a Plasma in the Presence of Oscillations. (T/E) Yu. M. Kagan, V. M. Milenin, N. K. Mitrofanova, and V. L. Smirnov. 14, 1497 (1970) [39, 1985 (1969)]

MIN'KO, L. Ya.
Investigation of Physical Processes in an Electrode-Discharge Shock Tube. (E) L. I. Grechikhin, B. B. Davydov, and L. Ya. Min'ko. 14, 518 (1969) [39, 689 (1969)]

MIRNOV, V. V.
Effect of the Ion-Acoustic Instability on the Skin Effect in a Plasma. (T) B. N. Breizman, V. V. Mirnov, and D. D. Ryutov. 14, 1365 (1970) [39, 1817 (1969)]

MIRONENKO, I. G.
Fields in Complex Waveguide Combinations. (T) O. G. Vendik, I. G. Mironenko, and F. V. Yavnoshan. 14, 357 (1969) [39, 483 (1969)]

MIROSHNICHENKO, V. I.
Reflection of Electromagnetic Waves from a Stratified Plasma. (T) V. I. Miroshnichenko. 14, 1473 (1970) [39, 1954 (1969)]

MITIN, R. V.
Pulsed Arcs in Argon and Helium at Microwave Frequencies. (E) E. S. Borovik, V. I. Petrenko, R. V. Mitin, V. P. Kantsedal, and Yu. R. Knyazev. 14, 1063 (1970) [39, 1416 (1969)]
High-Current Pulsed Hydrogen Arc at Pressures up to 400 Atmospheres. (E) V. I. Petrenko, R. V. Mitin, Yu. R. Knyazev, and A. V. Zvyagintsev. 14, 1373 (1970) [39, 1827 (1969)]

MITROFANOV, N. K.
Determination of the Electron Energy Distribution in a Plasma in the Presence of Oscillations. (T/E) Yu. M. Kagan, V. M. Milenin, N. K. Mitrofanov, and V. L. Smirnov. 14, 1497 (1970) [39, 1985 (1969)]

MITTSEV, M. A.
Surface Ionization of Easily Ionized Atoms in the Threshold Temperature Region. (T/E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1423 (1970) [39, 1893 (1969)]
Surface-Ionization Kinetics of Cesium on Tungsten by the Flash Method. (E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1432 (1970) [39, 1905 (1969)]

MOISEEV, S. S.
Low-Frequency Hydrodynamic Instability of a Current-Carrying Inhomogeneous Plasma. (T) I. S. Baikov, E. Ya. Kogan, S. S. Moiseev, and A. A. Rukhadze. 14, 163 (1969) [39, 230 (1969)]

MOIZHES, B. Ya.
Current-Voltage Characteristics of a Thermionic Converter at High Current Densities. Ionization Equilibrium in the Plasma of the Low-Voltage Arc. (T) F. G. Baksht, I. K. Korobova, and B. Ya. Moizhes. 14, 300 (1969) [39, 408 (1969)]
Theory of the Electrodic Sheath in a Low-Temperature Plasma. (T) F. G. Baksht, B. Ya. Moizhes, and V. A. Nemchinskii. 14, 417 (1969) [39, 558 (1969)]
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]

MORACHEVSKII, N. V.
Gas-Dynamic Processes in Irradiation of Solids. (E/T) Yu. V. Afanas'ev, N. G. Basov, O. N. Krokhin, N. V. Morachevskii, and G. V. Sklizkov. 14, 669 (1969) [39, 894 (1969)]

MORDVINOV, Yu. P.
Virtual Cathode in a Spherical Diode. (T) B. V. Eliseev and Yu. P. Mordvinov. 14, 1637 (1970) [39, 2169 (1969)]

MOROZ, E. M.
Particle Trapping in a Synchrotron. (T) E. M. Moroz. 14, 903 (1970) [39, 1203 (1969)]

MOROZOV, A. I.
Double-Focus Plasma Ion-Optical Systems. (T) A. I. Morozov. 14, 645 (1969) [39, 862 (1969)]

MOROZOV, D. Kh.
Behavior of Charged Particles near Current-Carrying Elements of a Magnetic Shield. (T) D. Kh. Morozov. 14, 1512 (1970) [39, 2005 (1969)]

MOROZOVA, G. G.
Spectroscopic Investigation of a Low-Voltage Low-Pressure Cesium Arc. (E) M. A. Lebedev, S. A. Maev, G. G. Morozova, and I. I. Smirenkina. 14, 505 (1969) [39, 673 (1969)]

MOSKALEV, B. I.
Photoeffect in Electron Emission from the Cathode in a Glow Discharge in Kr and Xe. (T/E) B. N. Klyarfel'd and B. I. Moskalev. 14, 800 (1969) [39, 1066 (1969)]

MUFEL', B. B.
Frequency-Time Spectra of Pulsed Microwave Signals. (E) I. A. Grishaev, B. B. Mufel', and T. F. Nikitina. 14, 930 (1970) [39, 1237 (1969)]

MURATOV, R. Z.
Multipole Degeneracy of the Eigenfrequences of a Plasmoid and Its Effect of Resonant Radiation-Pressure. (T) M. L. Levin and R. Z. Muratov. 14, 1285 (1970) [39, 1712 (1969)]

MUSIN, A. K.
Electrode Space-Charge Sheath in a Plasma Moving in a Magnetic Field. (T) A. K. Musin. 14, 828 (1969) [39, 1101 (1969)]
Precursor Ionization in Front of a Moving Plasmoid. (E) O. A. Malkin and A. K. Musin. 14, 821 (1969) [39, 1092 (1969)]

NARYSHKINA, L. G.
Effect of a Metal Sheet on the Radiation from a Charge Moving Parallel to the Boundary between Two Dielectrics. (T) L. G. Naryshkina and I. M. Yurkov. 14, 1360 (1970) [39, 1810 (1969)]

NASTICH, Yu. N.
Plasma Efficiency Coefficient δ in an Overdense Glow Discharge. (E) L. Yu. Abramovich, B. N. Klyarfel'd, and Yu. N. Nastich. 14, 939 (1970) [39, 1251 (1969)]

NASTOYASHCHII, A. F.
Probe Measurements of a Knudsen Arc in Argon. (E) Yu. A. Byrdin and A. F. Nastoyashchii. 14, 65 (1969) [39, 98 (1969)]

NAZARENKO, L. A.
Thermal Radiation of Certain Bodies. II. Inhomogeneous Sphere. (T) L. A. Nazarenko and I. P. Yakimenko. 14, 1030 (1970) [39, 1365 (1969)]

NAZAROV, N. I.
Cyclotron Interaction between an Electron Beam and the Fast Magnetosonic Wave. (E) A. I. Ermakov and N. I. Nazarov. 14, 1180 (1970) [39, 1573 (1969)]

NAZAROV, Yu. I.
Excitation of the Electromagnetic Field by Flexural Vibrations of a Ferromagnet. (T/E) Yu. I. Nazarov and E. A. Svyadoshch. 14, 869 (1970) [39, 1155 (1969)]

NEMCHINSKII, V. A.
Theory of the Electrodic Sheath in a Low-Temperature Plasma. (T) F. G. Baksht, B. Ya. Moizhes, and V. A. Nemchinskii. 14, 417 (1969) [39, 558 (1969)]

NERETINA, N. A.
Metal Sputtering by the Cathode Spot of a Vacuum Arc. (E) B. N. Klyarfel'd, N. A. Neretina, and N. N. Druzhinina. 14, 796 (1969) [39, 1061 (1969)]

NESTERIKHIN, Yu. E.
Mean for Ionization Cross Sections of Neutral Beams by Electrons with a Maxwellian Velocity Distribution. (T) N. I. Alinovskii, Yu. E. Nesterikhin, and B. K. Pakhtusov. 14, 96 (1969) [39, 139 (1969)]

NESTEROV, V. A.
Self-Sustaining Discharge in a Moving Gas. (E/T) V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 216 (1969) [39, 302 (1969)]
Corona Discharge in an Air Stream. (E) Yu. S. Bortnikov, V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 1579 (1970) [39, 2100 (1969)]

NEVINNYI, Yu. A.
Path of Charged Particles through Three-Electrode Telescope Deflection Systems. (E/T) B. V. Bobykin, V. M. Kel'man, Yu. A. Nevinnyi, and L. M. Sekunova. 14, 1463 (1970) [39, 1941 (1969)]

NEVSKII, A. P.
Retrograde Motion of the Cathode Spot in a Magnetic Field. (T) A. P. Nevskii. 14, 803 (1969) [39, 1070 (1969)]

NIKITINA, T. F.
Frequency-Time Spectra of Pulsed Microwave Signals. (E) I. A. Grishaev, B. B. Mufel', and T. F. Nikitina. 14, 930 (1970) [39, 1237 (1969)]

NIKOLAEV, B. I.
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]
Energy Distribution of the Ions Produced by a Large Laser Pulse on a Solid Target. (E/T) Yu. A. Bykovskii, N. N. Degtyarenko, V. I. Dymovich, V. F. Elesin, Yu. P. Kozyrev, B. I. Nikolaev, S. V. Ryzhinkh, and S. M. Sil'nov. 14, 1269 (1970) [39, 1694 (1969)]

NIKOLAEVA, V. A.
Thermionic Emission of Certain Refractory Materials and Possible Use As Cathodes in Gaseous Devices. (E) B. S. Kul'varskaya, A. I. Rekov, V. E. Serebrennikova, V. A. Nikolaeva, and Kh. S. Kan. 14, 122 (1969) [39, 175 (1969)]

NIKULIN, M. G.
Dynamic Stabilization of a Pinch in a Longitudinal Magnetic Field. (T/E) M. G. Nikulin. 14, 1618 (1970) [39, 2144 (1969)]

NOVIK, K. M.
Cyclotron Heating of Plasma Ions and Electrons by High-Frequency Fields. (E) B. V. Galaktionov, K. M. Novik, K. A. Podushnikova, B. P. Poloskin, and O. N. Shcherbinin. 14, 1059 (1970) [39, 1411 (1969)]

NOVIKOV, A. A.
Extension of the Pressure Range for Hollow Cathode Discharges. (E) A. A. Novikov and A. I. Soldatenko. 14, 1140 (1970) [39, 1521 (1969)]

NOVIKOV, N. E.
Vacuum Breakdown with Controlled Electrode Surfaces. I. (E) P. N. Chistyakov, A. L. Radionovskii, N. V. Tatarinova, N. E. Novikov, and D. S. Treshchikova. 14, 807 (1969) [39, 1075 (1969)]

NOVIKOV, V. A.
Amplification of Short Optical Pulses in Neodymium Glass. (T/E) A. A. Mak, B. G. Malinin, V. A. Novikov, D. S. Prilezhaev, A. I. Stepanov, and V. I. Ustyugov. 14, 1418 (1970) [39, 1886 (1969)]

NOVOSAD, Z. I.
Determination of the Amount of Gas Transported by Hydrodynamic Flow in Interdiffusion. (E) N. D. Kosov and Z. I. Novosad. 14, 435 (1969) [39, 582 (1969)]

OCHKIN, V. N.
Carbon Dioxide Dissociation in a CO_2 Laser. (E) E. S. Gasilevich, V. A. Ivanov, É. N. Lotkova, V. N. Ochkin, N. N. Sobolev, and N. G. Yaroslavskii. 14, 86 (1969) [39, 126 (1969)]

ODINTSOV, A. I.
Effect of Spatial Inhomogeneity of the Optical Field on Laser Gain Saturation. (T) A. I. Odintsov, V. V. Lebedeva, and I. V. Shafranovskaya. 14, 657 (1969) [39, 879 (1969)]

ODINTSOVA, G. A.
Determination of Electron Density in Plasma Jets Using a Microwave Fabry-Perot Interferometer and the Stark Effect. (E) G. A. Odintsova and E. P. Vaulin. 14, 68 (1969) [39, 102 (1969)]

OGURTSOV, G. N.
Spectrum of Electrons Emitted in Atomic Collisions. (E) G. N. Ogurtsov, I. P. Flaks, and S. V. Avakyan. 14, 972 (1970) [39, 1293 (1969)]

OKUN', I. Z.
Electrical Characteristics of a Pulsed Discharge in a Liquid. (E/T) I. Z. Okun'. 14, 627 (1969) [39, 837 (1969)]
Electrical Characteristics of a Pulsed Discharge in a Liquid. II. (E/T) I. Z. Okun'. 14, 636 (1969) [39, 850 (1969)]

OKUNEV, R. I.
Selection of Longitudinal Modes in a Ring Gas Laser. (E) V. Yu. Petrun'kin, M. G. Vysotskii, and R. I. Okunev. 14, 694 (1969) [39, 928 (1969)]

ORAEVSKII, V. N.
Nonlinear-Dissipative Instability for Magnetoacoustic Waves. (T) V. N. Oraevskii and V. P. Pavlenko. 14, 1352 (1970) [39, 1799 (1969)]

ORLOVA, I. B.
Mode Deformation in Open Resonators with Plane Mirrors. (T) Yu. A. Anan'ev, V. V. Lyubimov, and I. B. Orlova. 14, 1408 (1970) [39, 1872 (1969)]
Effect of Misalignment of Resonator Mirrors on Losses and Angular Distribution. (T) V. V. Lyubimov and I. B. Orlova. 14, 1648 (1970) [39, 2183 (1969)]

OSIPOV, V. V.
Prebunching in a High-Current Linear Ion Accelerator with a Low Injection Energy. (T) V. A. Enal'skii, V. V. Osipov, A. P. Fedotov, and B. K. Shembel'. 14, 1530 (1970) [39, 2034 (1969)]

OSTREIKO, G. N.
Phase Stability of an Intense Beam in a Relativistic Storage Ring. (T) M. M. Karliner, G. N. Ostreiko, and I. A. Shekhtman. 14, 235 (1969) [39, 326 (1969)]

OSTROVSKII, E. K.
Measurement of the Phase Spectrum of Accelerated Electrons Using a High-Frequency Separator. (E/T) A. I. Zykov, G. D. Kramskoi, and E. K. Ostrovskii. 14, 756 (1969) [39, 1007 (1969)]
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

OSTROVSKII, Yu. I.
Stress Distribution in Transparent Objects by Holographic Interferometry. (E) A. N. Zaidel', V. S. Listovets, and Yu. I. Ostrovskii. 14, 1678 (1970) [39, 2225 (1969)]

OVCHINNIKOV, S. S.
Excitation of Plasma Waves near the Lower Hybrid Resonance. (E/T) O. M. Shvets, S. M. Sotnikov, V. F. Tarasenko, and S. S. Ovchinnikov. 14, 459 (1969) [39, 610 (1969)]

OVSYANNIKOV, V. A.
Investigation of Plasma Compression Using Microwave Reflection. (E) V. A. Ipatov, M. G. Kaganskii, S. G. Kalmykhov, and V. A. Ovsyannikov. 14, 479 (1969) [39, 638 (1969)]

OVSYANNIKOVA, L. P.
Theory of Weak Lenses in Electron Optics. (T) L. P. Ovsyannikova and S. Ya. Yavor. 14, 304 (1969) [39, 412 (1969)]

PADALKA, V. G.
Tangential Injection of Plasma into a Toroidal Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, and V. G. Padalka. 14, 327 (1969) [39, 444 (1969)]

PAKHTUSOV, B. K.
Mean for Ionization Cross Sections of Neutral Beams by Electrons with a Maxwellian Velocity Distribution. (T) N. I. Alinovskii, Yu. E. Nesterikhin, and B. K. Pakhtusov. 14, 96 (1969) [39, 139 (1969)]

PANOV, M. N.
Coincidence Method for Studying Charge-Exchange in Proton-Inert Gas Interactions. (E) V. V. Afrosimov, Yu. A. Mamaev, M. N. Panov, and N. V. Federenko. 14, 109 (1969) [39, 159 (1969)]

PAPAKIN, V. F.
Continuous Generation of Coherent Radiation in a Discharge in Zn and Cd Vapors Obtained by Cathode Sputtering. (E) É. K. Karabut, V. S. Mikhalevskii, V. F. Papakin, and M. F. Sém. 14, 1447 (1970) [39, 1923 (1969)]

PASECHNIK, L. L.
Investigation of a Confined Hot-Cathode Discharge in a Magnetic Field. (E/T) O. V. Kozak and L. L. Pasechnik. 14, (1970) [39, 2177 (1969)]
Motion of He^+ Ions through He in Crossed Fields. (E/T) L. L. Pasechnik and V. V. Yagola. 14, 1659 (1970) [39, 2198 (1969)]

PASHITSKII, É. A.
Interaction of a Modulated Charged-Particle Beam with a Plasma in a Magnetic Field. I. Excitation of Characteristic Plasma Oscillations by Modulated Electron Beams. (T) É. A. Pashitskii. 14, 149 (1969) [39, 209 (1969)]
Interaction of a Modulated Charged-Particle Beam with a Plasma in a Magnetic Field. II. Excitation of Characteristic Plasma Oscillations by Modulated Ion Beams. (T) É. A. Pashitskii. 14, 155 (1969) [39, 218 (1969)]

PATARAYA, A. D.
Nonlinear Waves in a Three-Component Plasma. (T) A. D. Pataraya and D. S. Adzhiashvili. 14, 453 (1969) [39, 602 (1969)]
Solitary Waves in a Three-Component Collisionless Plasma. (T) A. D. Pataraya. 14, 456 (1969) [39, 607 (1969)]
Stationary Waves in a Magnetoactive Multicomponent Collisionless Plasma. (T) A. D. Pataraya. 14, 1288 (1970) [39, 1714 (1969)]
Shock Structure in Binary Mixtures. (T) A. D. Pataraya. 14, 1331 (1970) [39, 1770 (1969)]

PAVLENKO, V. P.
Nonlinear-Dissipative Instability for Magnetoacoustic Waves. (T) V. N. Oraevskii and V. P. Pavlenko. 14, 1352 (1970) [39, 1799 (1969)]

PAVLICHENKO, O. S.
Effect of Low-Frequency Oscillations on the Cyclotron Radiation of a Plasma Column. (E) Yu. K. Kuznetsov, O. S. Pavlichenko, and V. N. Starikov. 14, 1184 (1970) [39, 1578 (1969)]

PAVLINSKII, G. V.
Selective Excitation of X-Ray Fluorescence by Mixed Primary Radiation. (T/E) G. V. Pavlinskii and N. F. Losev. 14, 1247 (1970) [39, 1664 (1969)]

PAVLOV, Yu. I.
High-Output High-Coherence Diffraction-Limited Ruby Laser. (E) N. E. Korneev, Yu. I. Pavlov, and A. V. Folomeev. 14, 1699 (1970) [39, 2250 (1969)]

PEKAR, Yu. A.
Dynamics of Gas Separation in a Glow Discharge. (T) Yu. A. Pekar. 14, 83 (1969) [39, 122 (1969)]

PEREGUD, B. P.
Method for Confinement of Electrons in Closed Systems. (E) B. P. Peregud. 14, 571 (1969) [39, 760 (1969)]
Plasma Production in the Tornado Device. (E) G. A. Galechyan and B. P. Peregud. 14, 1272 (1970) [39, 1696 (1969)]

PEREL', V. I.
Modes and Threshold Conditions in a Three-Mirror Resonator. (T) V. I. Perel' and I. V. Rogova. 14, 379 (1969) [39, 513 (1969)]
Influence of the Finite Length of a Cylindrical Probe on the Ion Current. (T) Yu. M. Kagan and V. I. Perel'. 14, 1689 (1970) [39, 2238 (1969)]

PETRENKO, V. I.
Pulsed Arcs in Argon and Helium at Microwave Frequencies. (E) E. S. Borovik, V. I. Petrenko, R. V. Mitin, V. P. Kantsedal, and Yu. R. Knyazev. 14, 1063 (1970) [39, 1416 (1969)]
High-Current Pulsed Hydrogen Arc at Pressures up to 400 Atmospheres. (E) V. I. Petrenko, R. V. Mitin, Yu. R. Knyazev, and A. V. Zvyagintsev. 14, 1373 (1970) [39, 1827 (1969)]

PETRENKO, V. V.
Beam Shaping System for a 2 GeV Electron Accelerator. (E/T) I. A. Grishaev, N. A. Kovalenko, V. I. Kolosov, and V. V. Petrenko. 14, 139 (1969) [39, 197 (1969)]
Production of Nonmonochromatic Charged-Particle Beams Using Generalized Amplitude and Phase Functions. (T) Yu. N. Grigor'ev and V. V. Petrenko. 14, 1625 (1970) [39, 2154 (1969)]

PETROSYAN, V. I.
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. I. (T/E) V. I. Petrosyan, É. I. Dagman, D. S. Aleksenko, and P. A. Skripkina. 14, 1560 (1970) [39, 2076 (1969)]
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. II. (T/E) V. I. Petrosyan and É. I. Dagman. 14, 1567 (1970) [39, 2084 (1969)]

PETROV, I. A.
Doublet Consisting of Quadrupole-Octupole Lenses with Compensation for Spherical Aberration of the Image Width. (T) E. V. Shpak and I. A. Petrov. 14, 699 (1969) [39, 934 (1969)]

PETROV, V. M.
Vibration of the Walls of a Cavity Resonator under Ponderomotive Forces in the Presence of Feedback. (T/E) M. M. Karliner, V. M. Petrov, and I. A. Shekhtman. 14, 1041 (1970) [39, 1383 (1969)]

PETRUN'KIN, V. Yu.
Selection of Longitudinal Modes in a Ring Gas Laser. (E) V. Yu. Petrun'kin, M. G. Vysotskii, and R. I. Okunev. 14, 694 (1969) [39, 928 (1969)]

PETRUSHA, V. Yu.
Lithium Yield from a Supersonic Lithium-Vapor Jet. (E) B. A. D'yachkov, S. M. Krivoruchko, and V. Yu. Petrusha. 14, 686 (1969) [39, 918 (1969)]

PILIPENKO, V. V.
Measurement of Charge Phase Distribution in a Traveling-Wave Linear Accelerator. (E) G. M. Ivanov, V. V. Pilipenko, L. A. Makhenko, and A. N. Dovbnya. 14, 369 (1969) [39, 500 (1969)]
New Method for Measurement of Permittivity at Millimeter and Submillimeter Wavelengths. I. Permittivity of Thin Films. (E/T) V. V. Pilipenko, G. G. Polovnikov, V. G. Sologub, and V. P. Shestopalov. 14, 1662 (1970) [39, 2203 (1969)]

PILIYA, A. D.
Plasma Absorption of RF Energy Near the Lower Hybrid Frequency. (T) B. V. Galaktionov, V. E. Golant, A. D. Piliya, and O. N. Shcherbinin. 14, 721 (1969) [39, 960 (1969)]

PIMENOV, Yu. V.
Diffraction of a Plane Electromagnetic Wave on an Ideally Conducting Plane with a Circular Aperture. (T) Yu. V. Pimenov and R. A. Metrikin. 14, 1451 (1970) [39, 1925 (1969)]

PITKIN, V. A.
Determination of Local Plasma Parameters by Absorption Measurements on a Refracted Microwave Beam. (E) L. A. Dushin, V. A. Pitkin, A. I. Skibenko, and I. D. Fomin. 14, 348 (1969) [39, 471 (1969)]

PIVTSOV, V. S.
Angle, Time and Frequency Characteristics of a Traveling-Wave Ruby Laser. (E) V. V. Antsiferov, G. V. Krivoshchekov, V. S. Pivtsov, and K. G. Folin. 14, 696 (1969) [39, 931 (1969)]

PLIS, Yu. A.
Ionization of Polarized Atomic Hydrogen in a Penning Discharge. (E) Yu. A. Plis and L. M. Soroko. 14, 1216 (1970) [39, 1622 (1969)]

PODUSHNIKOVA, K. A.
Cyclotron Heating of Plasma Ions and Electrons by High-Frequency Fields. (E) B. V. Galaktionov, K. M. Novik, K. A. Podushnikova, B. P. Poloskin, and O. N. Shcherbinin. 14, 1059 (1970) [39, 1411 (1969)]

POGOREL'SKII, M. M.
Initiation of Vacuum Breakdown by Metal Particles. (E) P. V. Poshekhonov and M. M. Pogorel'skii. 14, 811 (1969) [39, 1080 (1969)]

POLIKANOV, V. S.
Effect of Space Charge and Diffusion on the Electrical Conductivity of a Gas Ionized by an External Source. (T) E. M. Vol'f and V. S. Polikanov. 14, 99 (1969) [39, 143 (1969)]
Electrical Conductivity of a Gas Ionized by an External Source. (T) E. M. Vol'f and V. S. Polikanov. 14, 105 (1969) [39, 152 (1969)]

POLOSKIN, B. P.
Cyclotron Heating of Plasma Ions and Electrons by High-Frequency Fields. (E) B. V. Galaktionov, K. M. Novik, K. A. Podushnikova, B. P. Poloskin, and O. N. Shcherbinin. 14, 1059 (1970) [39, 1411 (1969)]

POLOVIN, R. V.
Model for the Stochastic Heating of Electrons. (T) R. V. Polovin and V. V. Rozhkov. 14, 1026 (1970) [39, 1360 (1969)]

POLOVNIKOV, G. G.
New Method for Measurement of Permittivity at Millimeter and Submillimeter Wavelengths. I. Permittivity of Thin Films. (E/T) V. V. Pilipenko, G. G. Polovnikov, V. G. Sologub, and V. P. Shestopalov. 14, 1662 (1970) [39, 2203 (1969)]

POPLAVSKII, A. A.
Anisotropic Stability of Calcite ($CaCO_3$) Against Laser Radiation. (E) A. A. Poplavskii and L. D. Khazov. 14, 299 (1969) [39, 407 (1969)]

POPOV, A. V.
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]

POPOVICH, V. P.
Distribution Function of an Electron Beam in a Beam-Plasma Discharge. (E) E. G. Shustin, V. P. Popovich, and I. F. Kharchenko. 14, 745 (1969) [39, 993 (1969)]

POROBNOV, B. T.
Two Dimensional Flow of a Maxwellian Gas. (T) B. T. Porobnov and P. E. Suetin. 14, 563 (1969) [39, 748 (1969)]

POSHEKHONOV, P. V.
Initiation of Vacuum Breakdown by Metal Particles. (E) P. V. Poshekhonov and M. M. Pogorel'skii. 14, 811 (1969) [39, 1080 (1969)]

PRANEVICHYUS, L. I.
Mechanism for Electric Breakdown in High Vacuum. (E) L. I. Pranevichyus and I. Yu. Bartashyus. 14, 1301 (1970) [39, 1728 (1969)]

PRILEZHAEV, D. S.
Amplification of Short Optical Pulses in Neodymium Glass. (T/E) A. A. Mak, B. G. Malinin, V. A. Novikov, D. S. Prilezhaev, A. I. Stepanov, and V. I. Ustyugov. 14, 1418 (1970) [39, 1886 (1969)]

PROTSENKO, E. D.
Line Shape and Dip Width in the Gain Curve of a He–Ne Laser at the Wavelength of 0.63 μ. (E/T) S. A. Gonchukov, G. A. Mikhnenko, E. D. Protsenko, and A. I. Troinikov. 14, 391 (1969) [39, 528 (1969)]

PRUT, V. V.
Pulsed Discharges in Dielectric Chambers. (E) A. M. Andrianov, A. I. Zemskov, V. V. Prut, and V. A. Khrabrov. 14, 318 (1969) [39, 433 (1969)]

PUCHKOVA, N. G.
Exact Solutions of Nonlinear Electrodynamic Equations. (T) N. G. Puchkova. 14, 1034 (1970) [39, 1372 (1969)]

RADIN, A. M.
Linear Self-Consistent Theory of Diffraction Radiation. (T) A. M. Radin, O. A. Tret'yakov, and V. P. Shestopalov. 14, 887 (1970) [39, 1180 (1969)]

RADIONOVSKII, A. L.
Vacuum Breakdown with Controlled Electrode Surfaces. I. (E) P. N. Chistyakov, A. L. Radionovskii, N. V. Tatarinova, N. E. Novikov, and D. S. Treshchikova. 14, 807 (1969) [39, 1075 (1969)]

RAKHOVSKII, V. I.
Electrode Erosion Mechanism in a Pulsed Vacuum Discharge. (E) V. I. Rakhovskii and A. M. Yegudaev. 14, 227 (1969) [39, 317 (1969)]
Energy Losses in a High-Power Electron Beam. (E) I. I. Beilis, V. I. Rakhovskii, L. G. Tkachev, and M. Ya. Smelyanskii. 14, 1237 (1970) [39, 1650 (1969)]

RASHKOVAN, V. M.
Study of an Oscillatory Electron-Ion Discharge in a Longitudinal Magnetic Field. (E) V. M. Rashkovan, V. P. Demutskii, and N. A. Khizhnyak. 14, 333 (1969) [39, 452 (1969)]

RATNER, A. M.
Radiation Kinetics of a Q-Spoiled Optical Resonator. II. Passive Modulator. (T) A. M. Ratner and V. S. Chernov. 14, 662 (1969) [39, 885 (1969)]
Time Lag of the Spectrum of a Solid-State Laser with Strongly Degenerate Modes. (T/E) A. M. Ratner, V. S. Solov'ev, and T. I. Tiunova. 14, 1547 (1970) [39, 2059 (1969)]

RAZDOBARIN, G. T.
Investigation of an Electric Discharge Across a Laser Spark. (E) V. I. Vladimirov, G. M. Malyshev, G. T. Razdobarin, and V. V. Semenov. 14, 677 (1969) [39, 906 (1969)]

RED'KIN, V. S.
Beam Focusing by an Electrostatic Mirror with a Cylindrical Field. (E/T) V. V. Zashkvara and V. S. Red'kin. 14, 1089 (1970) [39, 1452 (1969)]

REIKHRUDEL', É. M.
Dependence of Current on Parameters in a Penning Discharge. (T/E) É. M. Reikhrudel', G. V. Smirnitskaya, and Nguen Khyu Ti. 14, 789 (1969) [39, 1052 (1969)]

REKOV, A. I.
Thermionic Emission of Certain Refractory Materials and Possible Use As Cathodes in Gaseous Devices. (E) B. S. Kul'varskaya, A. I. Rekov, V. E. Serebrennikova, V. A. Nikolaeva, and Kh. S. Kan. 14, 122 (1969) [39, 175 (1969)]

RIZKIN, A. A.
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]

ROGASKHOV, S. A.
Detailed Structure of Beam-Plasma Instability. (E) V. A. Lavrovskii, V. M. Deev, S. A. Rogashkov, Yu. G. Yaremenko, and I. F. Kharchenko. 14, 1190 (1970) [39, 1586 (1969)]

ROGOVA, I. V.
Modes and Threshold Conditions in a Three-Mirror Resonator. (T) V. I. Perel' and I. V. Rogova. 14, 379 (1969) [39, 513 (1969)]

ROMANOV, S. S.
Possibility of Obtaining a Minimum B Configuration in a Helical Magnetic Field. (T) S. S. Romanov. 14, 851 (1969) [39, 1130 (1969)]

ROMANYUK, L. I.
Plasma Flow from a Hot-Cathode Penning Discharge into a Vacuum Region with no Magnetic Field. (E) M. D. Gabovich, L. I. Romanyuk, and V. V. Ustalov. 14, 207 (1969) [39, 291 (1969)]

ROSINSKII, S. E.
Flute Instability in a Current-Carrying Plasma. (T) S. E. Rosinskii and V. G. Rukhlin. 14, 606 (1969) [39, 805 (1969)]
Stability of Trapped-Particle Oscillations in a Nonneutral Plasma. (T) S. E. Rosinskii and V. G. Rukhlin. 14, 1612 (1970) [39, 2136 (1969)]

ROZHDESTVBENSKII, B. V.
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]

ROZHKOV, V. V.
Model for the Stochastic Heating of Electrons. (T) R. V. Polovin and V. V. Rozhkov. 14, 1026 (1970) [39, 1360 (1969)]

ROZOV, S. I.
Velocity of Plasma Inhomogeneities in Crossed Electric and Magnetic Fields. (T) I. B. Chekmarev, S. I. Rozov, and E. M. Drobyshevskii. 14, 496 (1969) [39, 660 (1969)]

RUBASHOV, I. B.
Self-Sustaining Discharge in a Moving Gas. (E/T) V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 216 (1969) [39, 302 (1969)]
Corona Discharge in an Air Stream. (E) Yu. S. Bortnikov, V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 1579 (1970) [39, 2100 (1969)]

RUDAKOV, V. N
Radio Sounding of Glacier Inhomogeneities. (E) V. N. Rudakov and V. S. Luchininov. 14, 751 (1969) [39, 1001 (1969)]

RUDENKO, N. S.
Reproducibility of Delay Time for Breakdown of High-Pressure Triggered Spark Gaps. (E) G. S. Korshunov, N. S. Rudenko, and V. I. Tsvetkov. 14, 1074 (1970) [39, 1430 (1969)]

RUDNEV, N. I.
Plasma Injection into a Stellarator through a Divertor. (E/T) V. G. Zykov and N. I. Rudnev. 14, 918 (1970) [39, 1223 (1969)]
Mass-Energy Measurements of Plasma Trapped in the Aperture of a Divertor in Injection through a Magnetic Slot. (E) V. M. Zalkind, V. G. Zykov, V. I. Karpukhin, N. I. Rudnev, and V. T. Tolok. 14, 925 (1970) [39, 1231 (1969)]

RUKHADZE, A. A.
Low-Frequency Hydrodynamic Instability of a Current-Carrying Inhomogeneous Plasma. (T) I. S. Baikov, E. Ya. Kogan, S. S. Moiseev, and A. A. Rukhadze. 14, 163 (1969) [39, 230 (1969)]

RUKHLIN, V. G.
Flute Instability in a Current-Carrying Plasma. (T) S. E. Rosinskii and V. G. Rukhlin. 14, 606 (1969) [39, 805 (1969)]
Stability of Trapped-Particle Oscillations in a Nonneutral Plasma. (T) S. E. Rosinskii and V. G. Rukhlin. 14, 1612 (1970) [39, 2136 (1969)]

RUTKEVICH, B. N.
Plasma Stream in an Inhomogeneous Transverse Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, V. G. Padalka, B. N. Rutkevich, and K. D. Sinel'nikov. 14, 16 (1969) [39, 27 (1969)]

RYABININ, Yu. N.
Phase Transitions of Potassium Chloride and Its Alloys with Rubidium Chloride at High Pressures. (E) L. D. Livshits, Yu. N. Ryabinin, and L. V. Larionov. 14, 837 (1969) [39, 1115 (1969)]

RYABKA, P. M.
Optical Characteristics of the Beam of a Linear Electron Accelerator. (E) G. K. Dem'yanenko and P. M. Ryabka. 14, 1622 (1970) [39, 2150 (1969)]

RYBALKO, V. F.
Investigation of Oxygen Adsorption on Tungsten by Secondary Ion-Ion Emission. (E) V. F. Rybalko, B. Ya. Kolot, and Ya. M. Fogel'. 14, 1290 (1970) [39, 1717 (1969)]

RYUTOV, D. D.
Effect of the Ion-Acoustic Instability on the Skin Effect in a Plasma. (T) B. N. Breizman, V. V. Mirnov, and D. D. Ryutov. 14, 1365 (1970) [39, 1817 (1969)]

RYZHIKH, S. V.
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]

SAET, A. I.
Capillary Phenomena and the Crystallization of Specimens in Specified Shapes. (T) A. I. Saet and V. A. Tatarchenko. 14, 979 (1970) [39, 1302 (1969)]

SAKHAROV, I. E.
Investigation of the Microwave Oscillations Excited in a Gas Discharge by an Electron Beam. (E) I. E. Sakharov. 14, 198 (1969) [39, 278 (1969)]

SAMOILENKO, Yu. I.
Stabilization of Axially Symmetric Perturbations of a Conducting Fluid by a Distributed Automatic-Control System. (T) M. M. Dargeiko and Yu. I. Samoilenko. 14, 310 (1969) [39, 422 (1969)]

SAMSONOV, G. N.
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]

SAVCHENKO, B. I.
Possible Mechanism for Discharges in Thunderstorms. (T) B. I. Savchenko. 14, 1079 (1970) [39, 1437 (1969)]

SAVCHENKO, I. A.
Effect of Discharge Fluctuations on the Output of a Laser. (E) A. A. Zaitsev, V. F. Makhrov, I. A. Savchenko, and B. N. Shvilkin. 14, 575 (1969) [39, 764 (1969)]

SAVCHENKO, O. Ya.
Chain Mechanism for the Development of an Arc Discharge in Crossed Electric and Magnetic Fields. (E) Yu. G. Kononenko, O. Ya. Savchenko, and E. V. Shun'ko. 14, 191 (1969) [39, 269 (1969)]
Theory of a Cylindrical Probe. (E/T) O. Ya. Savchenko. 14, 1187 (1970) [39, 1582 (1969)]

SAVIN, O. R.
Novel Triplet of Electrostatic Quadrupole-Octupole Lenses with Corrected Spherical Aberration. (E) E. V. Shpak, S. Ya. Yavor, O. R. Savin, and A. S. Kuzema. 14, 1294 (1970) [39, 1720 (1969)]

SAVITSKII, E. M.
Work Function of Molybdenum-Rhenium Alloys. (E) E. M. Savitskii, I. V. Burov, and L. N. Litvak. 14, 535 (1969) [39, 713 (1969)]

SEKUNOVA, L. M.
Path of Charged Particles through Three-Electrode Telescope Deflection Systems. (E/T) B. V. Bobykin, V. M. Kel'man, Yu. A. Nevinnyi, and L. M. Sekunova. 14, 1463 (1970) [39, 1941 (1969)]

SÉM, M. F.
Continuous Generation of Coherent Radiation in a Discharge in Zn and Cd Vapors Obtained by Cathode Sputtering. (E) É. K. Karabut, V. S. Mikhalevskii, V. F. Papakin, and M. F. Sém. 14, 1447 (197) [39, 1923 (1969)]

SEMENOV, V. V.
Investigation of an Electric Discharge Across a Laser Spark. (E) V. I. Vladimirov, G. M. Malyshev, G. T. Razdobarin, and V. V. Semenov. 14, 677 (1969) [39, 906 (1969)]

SEREBRENNIKOVA, V. E.
Thermionic Emission of Certain Refractory Materials and Possible Use As Cathodes in Gaseous Devices. (E) B. S. Kul'varskaya, A. I. Rekov, V. E. Serebrennikova, V. A. Nikolaeva, and Kh. S. Kan. 14, 122 (1969) [39, 175 (1969)]

SEREBROV, L. A.
Effective Charge Density and Electric Field at a Dielectric Surface. (T) Yu. K. Golikov, L. A. Serebrov, and K. G. Utkin. 14, 708 (1969) [39, 944 (1969)]

SERGEENKOVA, E. A.
Electrodeless High-Frequency Pulsed Discharge in Inert Gases. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 769 (1969) [39, 1025 (1969)]
Investigation of the Energy Transfer Efficiency for a Pulsed Induction Discharge. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 774 (1969) [39, 1032 (1969)]

SHAFRANOVSKAYA, I. V.
Effect of Spatial Inhomogeneity of the Optical Field on Laser Gain Saturation. (T) A. I. Odintsov, V. V. Lebedeva, and I. V. Shafranovskaya. 14, 657 (1969) [39, 879 (1969)]

SHAPOVAL, V. Z.
Interaction of Microwave Oscillations and Low-Frequency Oscillations in a Beam-Plasma System. (E) S. M. Levitskii, V. Z. Shapoval, and I. P. Shashurin. 14, 343 (1969) [39, 465 (1969)]

SHAPTALA, V. G.
Nonlinear Interaction of Surface Waves in Nonisothermal Plasma. (T) A. N. Kondratenko and V. G. Shaptala. 14, 1681 (1970) [39, 2229 (1969)]

SHASHURIN, I. P.
Interaction of Microwave Oscillations and Low-Frequency Oscillations in a Beam-Plasma System. (E) S. M. Levitskii, V. Z. Shapoval, and I. P. Shashurin. 14, 343 (1969) [39, 465 (1969)]

SHCHANIN, P. M.
Operational Results with the 1.5 GeV Synchrotron at the Tomsk Polytechnical Institute. (E) V. A. Vizir', P. P. Krasnonosen'kikh, N. A. Lashuk, I. P. Chuchalin, and P. M. Shchanin. 14, 736 (1969) [39, 982 (1969)]

SHCHEGLOV, O. S.
High Frequency Oscillations in Beam-Plasma Interactions. (E) O. S. Shcheglov and F. G. Zvereva. 14, 23 (1969) [39, 37 (1969)]

SHCHERBININ, O. N.
Plasma Absorption of RF Energy near the Lower Hybrid Frequency. (T) B. V. Galaktionov, V. E. Golant, A. D. Piliya, and O. N. Shcherbinin. 14, 721 (1969) [39, 960 (1969)]
Cyclotron Heating of Plasma Ions and Electrons by High-Frequency Fields. (E) B. V. Galaktionov, K. M. Novik, K. A. Podushnikova, B. P. Poloskin, and O. N. Shcherbinin. 14, 1059 (1970) [39, 1411 (1969)]

SHCHERBININ, P. P.
Angular Distribution of Electrons Escaping at a Plasma-Electrode Interface. (T) I. P. Stakhanov and P. P. Shcherbinin. 14, 219 (1969) [39, 306 (1969)]
Fast Electron Distribution at a Cathode. (T) I. P. Stakhanov and P. P. Shcherbinin. 14, 1205 (1970) [39, 1607 (1969)]

SHCHERBININA, V. V.
A Multi-Electrode Probe for Negative Potentials Relative to a Plasma. (E) E. A. Bakulin, M. M. Bredov, E. V. Stepin, and V. V. Shcherbinina. 14, 73 (1969) [39, 108 (1969)]
Retardation Method for Plasma Measurements. (E) E. A. Bakulin, E. V. Stepin, and V. V. Shcherbinina. 14, 77 (1969) [39, 114 (1969)]

SHCHINOV, B. G.
Effect of Ion-Ion Collisions on the Nonlinear Interaction of Plasma Waves. (T) V. G. Makhan'kov and B. G. Shchinov. 14, 1343 (1970) [39, 1786 (1969)]
Nonlinear Theory of the Hydrodynamic Two-Stream Instability. II. (T) V. G. Makhan'kov and B. G. Shchinov. 14, 1349 (1970) [39, 1795 (1969)]

SHEKHTMAN, I. A.
Phase Stability of an Intense Beam in a Relativistic Storage Ring. (T) M. M. Karliner, G. N. Ostreiko, and I. A. Shekhtman. 14, 235 (1969) [39, 326 (1969)]
Vibration of the Walls of a Cavity Resonator under Ponderomotive Forces in the Presence of Feedback. (T/E) M. M. Karliner, V. M. Petrov, and I. A. Shekhtman. 14, 1041 (1970) [39, 1383 (1969)]

SHEMBEL', B. K.
Prebunching in a High-Current Linear Ion Accelerator with a Low Injection Energy. (T) V. A. Enal'skii, V. V. Osipov, A. P. Fedotov, and B. K. Shembel'. 14, 1530 (1970) [39, 2034 (1969)]

SHENNAGEL', G.
Eigenmodes of a Laser Resonator with Concave Mirrors and a Hole for Beam Extraction. (T) G. Shennagel'. 14, 1553 (1970) [39, 2066 (1969)]

SHERMERGOR, T. D.
Permittivity of Inhomogeneous Materials. (T) A. G. Fokin and T. D. Shermergor. 14, 984 (1970) [39, 1308 (1969)]

SHERSTOVITOV, V. E.
Single-Pulse Laser with an Unstable Resonator. (E) Yu. A. Anan'ev, N. A. Sventsitskaya, and V. E. Sherstovitov. 14, 997 (1970) [39, 1325 (1969)]

SHESTOPALOV, V. P.
Linear Self-Consistent Theory of Diffraction Radiation. (T) A. M. Radin, O. A. Tret'yakov, and V. P. Shestopalov. 14, 887 (1970) [39, 1180 (1969)]
New Method for Measurement of Permittivity at Millimeter and Submillimeter Wavelengths. I. Permittivity of Thin Films. (E/T) V. V. Pilipenko, G. G. Polovnikov, V. G. Sologub, and V. P. Shestopalov. 14, (1970) [39, 2203 (1969)]

SHEVCHENKO, V. V.
Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]

SHIROKOV, E. G.
Increasing the Total Field-Emission Current. (E) E. G. Shirokov. 14, 1134 (1970) [39, 1513 (1969)]

SHISHKIN, A. A.
Excitation of Electromagnetic Waves in an Electron Stream Passing through a Waveguide with Imperfectly Conducting Walls. (T) K. N. Stepanov and A. A. Shishkin. 14, 1228 (1970) [39, 1638 (1969)]

SHKUROPAT, P. I.
Investigation of Preignition Processes in Trigratrons Operating in Air. (E) P. I. Shkuropat. 14, 943 (1970) [39, 1256 (1969)]

SHOLOKHOV, N. V.
Induced Scattering of Quasi-Longitudinal Cyclotron Waves in a Plasma. (T) A. P. Kropotkin and N. V. Sholokhov. 14, 472 (1969) [39, 628 (1969)]

SHPAK, E. V.
Doublet Consisting of Quadrupole-Octupole Lenses with Compensation for Spherical Aberration of the Image Width. (T) E. V. Shpak and I. A. Petrov. 14, 699 (1969) [39, 934 (1969)]

Compensation of Spherical Aberration in a Stigmatic Triplet of Short Quadrupole-Octupole Lenses. (T) T. Ya. Fishkova and E. V. Shpak. 14, 1006 (1970) [39, 1333 (1969)]
Novel Triplet of Electrostatic Quadrupole-Octupole Lenses with Corrected Spherical Aberration. (E) E. V. Shpak, S. Ya. Yavor, O. R. Savin, and A. S. Kuzema. 14, 1294 (1970) [39, 1720 (1969)]
Design of Electron-Optical Quadrupole-Octupole Correcting Lenses. (T/E) E. V. Shpak and S. Ya. Yavor. 14, 1297 (1970) [39, 1723 (1969)]

SHPIGEL', I. S.
Plasma Induction Source with Reduced Impurity Content. II. (E) I. A. Kossyi and I. S. Shpigel'. 14, 486 (1969) [39, 647 (1969)]

SHUKEILO, I. A.
Parametric Resonance in Strong-Beam Accelerators. (T) V. I. Balbekov and I. A. Shukeilo. 14, 1401 (1970) [39, 1863 (1969)]

SHUMANOV, V. S.
Radiation from a Dense Plasma Generated by an Exploded Wire in a Vacuum. (E) E. K. Chekalin and V. S. Shumanov. 14, 46 (1969) [39, 71 (1969)]

SHUN'KO, E. V.
Chain Mechanism for the Development of an Arc Discharge in Crossed Electric and Magnetic Fields. (E) Yu. G. Kononenko, O. Ya. Savchenko, and E. V. Shun'ko. 14, 191 (1969) [39, 269 (1969)]

SHUSTIN, E. G.
Distribution Function of an Electron Beam in a Beam-Plasma Discharge. (E) E. G. Shustin, V. P. Popovich, and I. F. Kharchenko. 14, 745 (1969) [39, 993 (1969)]

SHUSTOV, V. A.
Theory of Thermionic Converters with Volume Ionization. (T/E) V. A. Shustov and T. K. Zerzdkina. 14, 1339 (1970) [39, 1913 (1969)]
Optimum Electrical Power of Thermionic Converters with Mo, W, Re, and Ir Cathodes. (E) V. A. Shustov and T. K. Zvezdkina. 14, 1683 (1970) [39, 2231 (1969)]

SHVETS, O. M.
Excitation of Plasma Waves near the Lower Hybrid Resonance. (E/T) O. M. Shvets, S. M. Sotnikov, V. F. Tarasenko, and S. S. Ovchinnikov. 14, 459 (1969) [39, 610 (1969)]

SHVILKIN, B. N.
Effect of Discharge Fluctuations on the Output of a Laser. (E) A. A. Zaitsev, V. F. Makhrov, I. A. Savchenko, and B. N. Shvilkin. 14, 575 (1969) [39, 764 (1969)]

SIDOROV, V. P.
Stabilization of Certain Plasma Instabilities by High-Frequency Pressure. (T) V. P. Sidorov. 14, 169 (1969) [39, 238 (1969)]

SIKOLENKO, V. F.
A Method for Producing a Rapidly Rising Current Pulse in an Inductive Load. (T/E) V. F. Sikolenko. 14, 61 (1969) [39, 93 (1969)]

SILIN, V. P.
Stability of a Magnetized Plasma in a Strong High Frequency Field. (T) L. M. Gorbunov and V. P. Silin. 14, 1 (1969) [39, 3 (1969)]
Plasma Transport Equations. (T) A. Yu. Kirii and V. P. Silin. 14, 583 (1969) [39, 773 (1969)]
The Relaxation of Electron and Ion Temperatures in a Plasma in a Strong Magnetic Field. (T) V. P. Silin and G. P. Chernyi. 14, 589 (1969) [39, 781 (1969)]

SILAKOV, V. P.
Surface Drift Oscillations of a Plasma. (T/E) E. E. Lovetskii and V. P. Silakov. 14, 1283 (1970) [39, 1709 (1969)]

SIL'NOV, S. M.
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]

SIMAKOV, A. G.
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]

SIMAKOV, A. S.
Computer Solution of Two-Dimensional Nonlinear Magnetostatic Problems (Strong-Saturation Case). (T/E) N. I. Doinikov and A. S. Simakov. 14, 1097 (1970) [39, 1463 (1969)]

SINEL'NIKOV, K. D.
Plasma Stream in an Inhomogeneous Transverse Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, V. G. Padalka, B. N. Rutkevich, and K. D. Sinel'nikov. 14, 16 (1969) [39, 27 (1969)]

SINITSYN, N. V.
Approximation Method for Calculating Equilibrium Ionization in an Inert Gas. (T/E) N. V. Sinitsyn. 14, 1437 (1970) [39, 1911 (1969)]

SKIBENKO, A. I.
Determination of Local Plasma Parameters by Absorption Measurements on a Refracted Microwave Beam. (E) L. A. Dushin, V. A. Pitkin, A. I. Skibenko, and I. D. Fomin. 14, 348 (1969) [39, 471 (1969)]

SKIBENKO, E. I.
Supersonic Gas Jet as a Vacuum Seal. (T/E) M. Yu. Bredikhin, A. M. Il'chenko, E. I. Skibenko, and V. B. Yuferov. 14, 1573 (1970) [39, 2092 (1969)]
Cryogenically Cooled Channels as Differential Pumping Systems. (T/E) V. B. Yuferov, E. I. Skibenko, and B. V. Glasov. 14, 1577 (1970) [39, 2097 (1969)]

SKLIZKOV, G. V.
Gas-Dynamic Processes in Irradiation of Solids. (E/T) Yu. V. Afanas'ev, N. G. Basov, O. N. Krokhin, N. V. Morachevskii, and G. V. Sklizkov. 14, 669 (1969) [39, 894 (1969)]

SKRIPAL', L. P.
Emission of Energetic Ions from a Penning Discharge in an Inhomogeneous Magnetic Field. (E) R. A. Demirkhanov, Yu. V. Kursanov, and L. P. Skripal'. 14, 500 (1969) [39, 666 (1969)]

SKRIPKINA, P. A.
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. I. (T/E) V. I. Petrosyan, É. I. Dagman, D. S. Aleksenko, and P. A. Skripkina. 14, 1560 (1970) [39, 2076 (1969)]

SLABOSPITSKII, R. P.
Polarized Negative Deuteron Injector for a Tandem Acceptor. (E) R. P. Slabospitskii, I. E. Kiselev, I. M. Karnaukhov, I. D. Lopatko, and A. Ya. Taranov. 14, 1129 (1970) [39, 1506 (1969)]

SLIVKOV, I. N.
Electric Breakdown in Vacuum at Various Voltages. (E) I. N. Slivkov. 14, 1369 (1970) [39, 1822 (1969)]

SMELYANSKII, M. Ya.
Energy Losses in a High-Power Electron Beam. (E) I. I. Beilis, V. I. Rakhovskii, L. G. Tkachev, and M. Ya. Smelyanskii. 14, 1237 (1970) [39, 1650 (1969)]

SMIRENKINA, I. I.
Spectroscopic Investigation of a Low-Voltage Low-Pressure Cesium Arc. (E) M. A. Lebedev, S. A. Maev, G. G. Morozova, and I. I. Smirenkina. 14, 505 (1969) [39, 673 (1969)]

SMIRNITSKAYA, G. V.
Discharge in a Penning Tube and in a Cylindrical Magnetron at Low Pressure. (T/E) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 522 (1969) [39, 694 (1969)]
The Center Potential and Electron Density in a Penning Discharge. (T/E) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 783 (1969) [39, 1044 (1969)]

Dependence of Current on Parameters in a Penning Discharge. (T/E) É. M. Reikhrudel', G. V. Smirnitskaya, and Nguen Khyu Ti. 14, 789 (1969) [39, 1052 (1969)]
Ion Current Distribution at the Cathode Surface in a Low-Pressure Penning Discharge. (T) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 1219 (1970) [39, 1625 (1969)]

SMIRNOV, V. I.
Afterglow Diffusion in Various Gases. (E/T) V. V. Bulanin, A. P. Zhilinskii, and V. I. Smirnov. 14, 464 (1969) [39, 617 (1969)]

SMIRNOV, V. L.
Determination of the Electron Energy Distribution in a Plasma in the Presence of Oscillations. (T/E) Yu. M. Kagan, V. M. Milenin, N. K. Mitrofanov, and V. L. Smirnov. 14, 1497 (1970) [39, 1985 (1969)]

SMIRNOVA, V. V.
Amplification of Electric-Field Fluctuations Close to a Body in Plasma. (T) V. V. Smirnova. 14, 32 (1969) [39, 49 (1969)]

SOBOLEV, N. N.
Carbon Dioxide Dissociation in a CO_2 Laser. (E) E. S. Gasilevich, V. A. Ivanov, É. N. Lotkova, V. N. Ochkin, N. N. Sobolev, and N. G. Yaroslavskii. 14, 86 (1969) [39, 126 (1969)]

SOLDATENKO, A. I.
Extension of the Pressure Range for Hollow Cathode Discharges. (E) A. A. Novikov and A. I. Soldatenko. 14, 1140 (1970) [39, 1521 (1969)]

SOLDATENKOV, T. R.
Compensation of Toroidal Particle Drift by a Rotating Magnetic Field. (T) T. R. Soldatenkov. 14, 1355 (1970) [39, 1803 (1969)]

SOLOGUB, V. G.
New Methods for Measurement of Permittivity at Millimeter and Submillimeter Wavelengths. I. Permittivity of Thin Films. (E/T) V. V. Pilipenko, G. G. Polovnikov, V. G. Sologub, and V. P. Shestopalov. 14, 1662 (1970) [39, 2203 (1969)]

SOLOV'EV, V. S.
Time Lag on the Spectrum of a Solid-State Laser with Strongly Degenerate Modes. (T/E) A. M. Ratner, V. S. Solov'ev, and T. I. Tiunova. 14, 1547 (1970) [39, 2059 (1969)]

SONIN, É. B.
Theory of the Low-Voltage Arc in the Thermionic Converter. (T/E) A. A. Belokon' and É. B. Sonin. 14, 1583 (1970) [39, 2105 (1969)]

SOROKO, L. M.
Ionization of Polarized Atomic Hydrogen in a Penning Discharge. (E) Yu. A. Plis and L. M. Soroko. 14, 1216 (1970) [39, 1622 (1969)]

SOSNIN, V. A.
Resonance Effects with Absorption. (T) Yu. A. Medvedev and V. A. Sosnin. 14, 1225 (1970) [39, 1634 (1969)]

SOTNIKOV, S. M.
Excitation of Plasma Waves near the Lower Hybrid Resonance. (E/T) O. M. Shvets, S. M. Sotnikov, V. F. Tarasenko, and S. S. Ovchinnikov. 14, 459 (1969) [39, 610 (1969)]

STAKHANOV, I. P.
Angular Distribution of Electrons Escaping at a Plasma-Electrode Interface. (T) I. P. Stakhanov and P. P. Shcherbinin. 14, 219 (1969) [39, 306 (1969)]
Effect of Perturbations in the Langmuir Cathode Sheath on the Rate of Ionization in Arc Discharges. (E) I. P. Stakhanov. 14, 1115 (1970) [39, 1486 (1969)]
Volt-Ampere Characteristics of a Low-Voltage Arc. (T/E) I. P. Stakhanov and I. I. Kasikov. 14, 1122 (1970) [39, 1496 (1969)]
Fast Electron Distribution at a Cathode. (T) I. P. Stakhanov and P. P. Shcherbinin. 14, 1205 (1970) [39, 1607 (1969)]

STANKEVICH, Yu. L.
Effect of Cathode Surface State on the Dielectric Strength of Gases and Liquids. (E) Yu. L. Stankevich and V. G. Kalinin. 14, 949 (1970) [39, 1264 (1969)]

STARIKOV, V. N.
Effect of Low-Frequency Oscillations on the Cyclotron Radiation of a Plasma Column. (E) Yu. K. Kuznetsov, O. S. Pavlichenko, and V. N. Starikov. 14, 1184 (1970) [39, 1578 (1969)]

STARKOVA, V. N.
The Stability of a Plasma Cylinder in the Field of a Traveling Magnetic Wave Taking Hall Currents into Account. (T) V. N. Starkova. 14, 1055 (1970) [39, 1405 (1969)]

STEPANOV, A. I.
Resonator Losses in Solid-State Lasers. (E) Yu. A. Kalinin, A. A. Mak, and A. I. Stepanov. 14, 1255 (1970) [39, 1676 (1969)]
Amplification of Short Optical Pulses in Neodymium Glass. (T/E) A. A. Mak, B. G. Malinin, V. A. Novikov, D. S. Prileznaev, A. I. Stepanov, and V. I. Ustyugov. 14, 1418 (1970) [39, 1886 (1969)]

STEPANOV, B. M.
Electromagnetic Field Due to an Elevated Point Source of Long-Range Radiation in Air above a Conducting Plane. (T) Yu. A. Medvedev, B. M. Stepanov, and G. V. Fedorovich. 14, 654 (1969) [39, 875 (1969)]

STEPANOV, K. N.
Excitation of Electromagnetic Waves in an Electron Stream Passing Through a Waveguide with Imperfectly Conducting Walls. (T) K. N. Stepanov and A. A. Shishkin. 14, 1228 (1970) [39, 1638 (1969)]

STEPIN, E. V.
A Multi-Electrode Probe for Negative Potentials Relative to a Plasma. (E) E. A. Bakulin, M. M. Bredov, E. V. Stepin, and V. V. Shcherbinina. 14, 73 (1969) [39, 108 (1969)]
Retardation Method for Plasma Measurements. (E) E. A. Bakulin, E. V. Stepin, and V. V. Shcherbinina. 14, 77 (1969) [39, 114 (1969)]

STOLYAROV, S. N.
Interaction of Electromagnetic Waves with Interpenetrating Dielectric Media with Different Velocities. (T) S. N. Stolyarov. 14, 1044 (1970) [39, 1388 (1969)]

SUEMIN, P. E.
Determination of Potential Parameters from Viscosity. (E) B. A. Ivakin, P. E. Suemin, and A. S. Vakhlov. 14, 432 (1969) [39, 577 (1969)]

SUETIN, P. E.
Two Dimensional Flow of a Maxwellian Gas. (T) B. T. Porobnov and P. E. Suetin. 14, 563 (1969) [39, 748 (1969)]

SURAMLISHVILI, G. I.
Wave Kinetics in an Anisotropic Plasma. II. (T) G. I. Suramlishvili. 14, 1334 (1970) [39, 1774 (1969)]

SUTOVSKII, V. M.
Plasma Diagnostics in a Pinch-Discharge Laser. (E/T) A. N. Vasil'eva, V. M. Likhachev, and V. M. Sutovskii. 14, 246 (1969) [39, 341 (1969)]

SVENTSITSKAYA, N. A.
Single-Pulse Laser with an Unstable Resonator. (E) Yu. A. Anan'ev, N. A. Sventsitskaya, and V. E. Sherstovitov. 14, 997 (1970) [39, 1325 (1969)]

SVICH, V. A.
Submillimeter CW Laser Using H_2O or HCN. (E) S. F. Dyubko, V. A. Svich, and R. A. Valitov. 14, 855 (1969) [39, 1135 (1969)]

SVIRIDKINA, V. S.
Plasma Polarization in the Low-Frequency Region. (E) A. F. Aleksandrov, A. A. Kuzovnikov, V. S. Sviridkina, and V. V. Tarasova. 14, 1628 (1970) [39, 2158 (1969)]

SVYADOSHCH, E. A.
Excitation of the Electromagnetic Field by Flexural Vibrations of a Ferromagnet. (T/E) Yu. I. Nazarov and E. A. Svyadoshch. 14, 869 (1970) [39, 1155 (1969)]

SYCHEV, A. A.
Kinetics of the Free-Oscillation Spectrum of a Ruby Laser without Mode Discrimination. (E) V. I. Malyshev, A. S. Markin, and A. A. Sychev. 14, 241 (1969) [39, 334 (1969)]

TARANOV, A. Ya.
Polarized Negative Deuteron Injector for a Tandem Accelerator. (E) R. P. Slabospitskii, I. E. Kiselev, I. M. Karnaukhov, I. D. Lopatko, and A. Ya. Taranov. 14, 1129 (1970) [39, 1506 (1969)]

TARASENKO, V. F.
Excitation of Plasma Waves near the Lower Hybrid Resonance. (E/T) O. M. Shvets, S. M. Sotnikov, V. F. Tarasenko, and S. S. Ovchinnikov. 14, 459 (1969) [39, 610 (1969)]

TARASOVA, L. V.
X Rays from Pulsed Discharges in Air. (E) L. V. Tarasova and L. N. Khudyakova. 14, 1148 (1970) [39, 1530 (1969)]

TARASOVA, V. V.
Plasma Polarization in the Low-Frequency Region. (E) A. F. Aleksandrov, A. A. Kuzovnikov, V. S. Sviridkina, and V. V. Tarasova. 14, 1628 (1970) [39, 2158 (1969)]

TATARCHENKO, V. A.
Capillary Phenomena and the Crystallization of Specimens in Specified Shapes. (T) A. I. Saet and V. A. Tatarchenko. 14, 979 (1970) [39, 1302 (1969)]

TATARINOVA, N. V.
Vacuum Breakdown with Controlled Electrode Surfaces. I. (E) P. N. Chistyakov, A. L. Radionovskii, N. V. Tatarinova, N. E. Novikov, and D. S. Treshchikova. 14, 807 (1969) [39, 1075 (1969)]

TEREKHIN, D. K.
Polarization Effects in an He–Ne Laser Operating at $\lambda = 3.39\ \mu$ in a Magnetic Field. (E/T) D. K. Terekhin and S. A. Fridrikhov. 14, 1444 (1970) [39, 1919 (1969)]

TI, N. K.
Discharge in a Penning Tube and in a Cylindrical Magnetron at Low Pressures. (T/E) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 522 (1969) [39, 694 (1969)]
The Center Potential and Electron Density in a Penning Discharge. (T/E) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 783 (1969) [39, 1044 (1969)]
Dependence of Current on Parameters in a Penning Discharge. (T/E) É. M. Reikhrudel', G. V. Smirnitskaya, and Nguen Khyu Ti. 14, 789 (1969) [39, 1052 (1969)]
Ion Current Distribution at the Cathode Surface in a Low-Pressure Penning Discharge. (T) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 1219 (1970) [39, 1625 (1969)]

TITKOV, A. S.
Investigation of the Electronic Component of the Thermal Flux under Arc Conditions in a Thermionic Converter. (E) V. A. Maksimov and A. S. Titkov. 14, 115 (1969) [39, 166 (1969)]

TIUNOVA, T. I.
Time Lag of the Spectrum of a Solid-State Laser with Strongly Degenerate Modes. (T/E) A. M. Ratner, V. S. Solov'ev, and T. I. Tiunova. 14, 1547 (1970) [39, 2059 (1969)]

TKACHEV, L. G.
Energy Losses in a High-Power Electron Beam. (E) I. I. Beilis, V. I. Rakhovskii, L. G. Tkachev, and M. Ya. Smelyanskii. 14, 1237 (1970) [39, 1650 (1969)]

TOLOK, V. T.
Mass-Energy Measurements of Plasma Trapped in the Aperture of a Divertor in Injection through a Magnetic Slot. (E) V. M. Zaikind, V. G. Zykov, V. I. Karpukhin, N. I. Rudnev, and V. T. Tolok. 14, 925 (1970) [39, 1231 (1969)]

TREKHOV, E. S.
Two-Step Development of a Current Pulse between Plane Electrodes. (E) O. A. Malkin and E. S. Trekhov. 14, 816 (1969) [39, 1086 (1969)]

TRESHCHIKOVA, D. S.
Vacuum Breakdown with Controlled Electrode Surfaces. I. (E) P. N. Chistyakov, A. L. Radionovskii, N. V. Tatarinova, N. E. Novikov, and D. S. Treshchikova. 14, 807 (1969) [39, 1075 (1969)]

TRET'YAKOV, O. A.
Linear Self-Consistent Theory of Diffraction Radiation. (T) A. M. Radin, O. A. Tret'yakov, and V. P. Shestopalov. 14, 887 (1970) [39, 1180 (1969)]

TROINIKOV, A. I.
Line Shape and Dip Width in the Gain Curve of a He–Ne Laser at the Wavelength of $0.63\ \mu$. (E/T) S. A. Gonchukov, G. A. Mikhnenko, E. D. Protsenko, and A. I. Troinikov. 14, 391 (1969) [39, 528 (1969)]

TROTSYUK, N. I.
Atomic-Beam Focusing in a Hexapole Magnetic System with Spherical Aberration. (T) N. I. Trotsyuk. 14, 529 (1969) [39, 704 (1969)]

TRUBCHANINOV, S. A.
Rotation and Instability in Plasmoids Moving into a Magnetic Field. (E) A. A. Kalmykov and S. A. Trubchaninov. 14, 1379 (1970) [39, 1834 (1969)]

TSARENKOV, A. P.
Calibration of Tracking Electrodes in Proton Synchrotrons. (E) G. S. Kazanskii, A. I. Mikhailov, A. P. Tsarenkov, and K. V. Chekhlov. 14, 363 (1969) [39, 492 (1969)]

TSAREV, B. M.
The Emission Properties of Tungsten-Rhenium Alloys. (E) N. D. Konovalov, V. A. Kuznetsov, and B. M. Tsarev. 14, 834 (1969) [39, 1110 (1969)]

TSAREVA, L. S.
Approximate Theory for Amplification of Magnetic Fields. (T) N. N. Kalitkin and L. S. Tsareva. 14, 1050 (1970) [39, 1397 (1969)]

TSEITLIN, L. A.
Calculation of the Electric Field and Capacitance of Elongated and Flattened Bodies. (T) L. A. Tseitlin. 14, 872 (1970) [39, 1159 (1969)]
Eddy Currents in Thin Plates and Shells. (T) L. A. Tseitlin. 14, 1305 (1970) [39, 1733 (1969)]

TSENDIN, L. D.
Propagation of Low-Frequency Longitudinal Waves in a Gas Discharge. (T) L. D. Tsendin. 14, 1013 (1970) [39, 1341 (1969)]

TSEREVITINOV, S. S.
Braking and Purification of a Plasma Jet by a Rapidly Increasing Magnetic Field. (E/T) V. I. Vasil'ev, V. S. Komel'kov, and S. S. Tserevitinov. 14, 322 (1969) [39, 438 (1969)]

TSINTSADZE, N. L.
Effect of a Nonlinear Monochromatic Wave on the Electrical Conductivity of a Fully Ionized Plasma. (T) F. Baimbetov and N. L. Tsintsadze. 14, 1339 (1970) [39, 1781 (1969)]

TSVETKOV, V. I.
Reproducibility of Delay Time for Breakdown on High-Pressure Triggered Spark Gaps. (E) G. S. Korshunov, N. S. Rudenko, and V. I. Tsvetkov. 14, 1074 (1970) [39, 1430 (1969)]

TSYTOVICH, V. N.
Nonlinear Interaction of Electrostatic Waves with Ion-Ion Collisions in a Turbulent Plasma. (T) V. G. Makhan'kov and V. N. Tsytovich. 14, 594 (1969) [39, 788 (1969)]

Nonlinear Generation of Plasma Waves by a Beam of Transverse Waves. IV.. (T) V. N. Tsytovich. 14, 1321 (1970) [39, 1756 (1969)]

TUNITSKII, L. N.
Discharge Formation in Tubes. (T) L. N. Tunitskii and E. M. Cherkasov. 14, 1640 (1970) [39, 2173 (1969)]

UL'YANOV, K. N.
Contraction of a Positive Column. I. (E) V. Yu. Baranov and K. N. Ul'yanov. 14, 176 (1969) [39, 249 (1969)]
Contraction of a Positive Column. II. (T) V. Yu. Baranov and K. N. Ul'yanov. 14, 183 (1969) [39, 259 (1969)]

URAEV, V. P.
Certain Problems in Calculating the Temperature of ac Arcs. (T/E) V. P. Uraev. 14, 54 (1969) [39, 82 (1969)]

USTALOV, V. V.
Plasma Flow from a Hot-Cathode Penning Discharge into a Vacuum Region with no Magnetic Field. (E) M. D. Gabovich, L. I. Romanyuk, and V. V. Ustalov. 14, 207 (1969) [39, 291 (1969)]

USTINOV, Yu. K.
Interaction of Water Vapor with Tungsten Surfaces. (E) V. N. Ageev, N. I. Ionov, and Yu. K. Ustinov. 14, 1009 (1970) [39, 1337 (1969)]

USTYUGOV, V. I.
Amplification of Short Optical Pulses in Neodymium Glass. (T/E) A. A. Mak, B. G. Malinin, V. A. Novikov, D. S. Prilezhaev, A. I. Stepanov, and V. I. Ustyugov. 14, 1418 (1970) [39, 1886 (1969)]

UTKIN, K. G.
Effective Charge Density and Electric Field at a Dielectric Surface. (T) Yu. K. Golikov, L. A. Serebrov, and K. G. Utkin. 14, 708 (1969) [39, 944 (1969)]

VAGNER, S. D.
Electron Energy Distribution in a High-Frequency Discharge. (E) S. D. Vagner, V. A. Virolainen, and Yu. M. Kagan. 14, 502 (1969) [39, 669 (1969)]

VAISBURD, I. M.
Method of Producing a Betatron Field. (T) I. M. Vaisburd. 14, 143 (1969) [39, 203 (1969)]

VALITOV, R. A.
Experimental Investigation of Coupled Open Resonators. (E) V. A. Epishin, V. V. Kamyshan, and R. A. Valitov. 14, 716 (1969) [39, 954 (1969)]
Submillimeter CW Laser Using H_2O or HCN. (E) S. F. Dyubko, V. A. Svich, and R. A. Valitov. 14, 855 (1969) [39, 1135 (1969)]

VAKHLOV, A. S.
Determination of Potential Parameters from Viscosity. (E) B. A. Ivakin, P. E. Suemin, and A. S. Vakhlov. 14, 432 (1969) [39, 577 (1969)]

VAKHRUSHIN, Yu. P.
High-Current Electron Beam in a Linear Induction Accelerator. (T) Yu. P. Vakhrushin and V. S. Kuznetsov. 14, 374 (1969) [39, 506 (1969)]

VASIL'EV, V. I.
Braking and Purification of a Plasma Jet by a Rapidly Increasing Magnetic Field. (E/T) V. I. Vasil'ev, V. S. Komel'kov, and S. S. Tserevitinov. 14, 322 (1969) [39, 438 (1969)]

VASIL'EVA, A. N.
Plasma Diagnostics in a Pinch-Discharge Laser. (E/T) A. N. Vasil'eva, V. M. Likhachev, and V. M. Sutovskii. 14, 246 (1969) [39, 341 (1969)]

VASIL'EVA, G. G.
Hollow Cathode in a Low-Pressure Penning Discharge. (E) G. G. Vasil'eva and Yu. E. Kreindel'. 14, 213 (1969) [39, 298 (1969)]

VAULIN, E. P.
Determination of Electron Density in Plasma Jets Using a Microwave Fabry-Perot Interferometer and the Stark Effect. (E) G. A. Odintsova and E. P. Vaulin. 14, 68 (1969) [39, 102 (1969)]

VECHESLAVOV, V. V.
Divergence of Ion Beams with Finite Phase Volume. (T) V. V. Vecheslavov and V. I. Kononov. 14, 702 (1969) [39, 938 (1969)]
Ion-Optical Matching by a Random-Search Method. (E) V. V. Vecheslavov and V. I. Kononov. 14, 907 (1970) [39, 1209 (1969)]

VENDIK, O. G.
Fields in Complex Waveguide Combinations. (T) O. G. Vendik, I. G. Mironenko, and F. V. Yavnoshan. 14, 357 (1969) [39, 483 (1969)]

VESELOVSKII, I. S.
Electron Recombination Coefficient with Three Body Collisions in a Plasma. (T) I. S. Veselovskii. 14, 193 (1969) [39, 271 (1969)]
Recombination Coefficient of a Weakly Ionized Gas in an Electric Field. (T) I. S. Veselovskii. 14, 1685 (1970) [39, 2233 (1969)]

VILESOV, F. I.
Photodesorption of OH Radicals from a ZnO Surface Containing Adsorbed Water. (E) A. A. Lisachenko and F. I. Vilesov. 14, 442 (1969) [39, 590 (1969)]

VINOKUROV, G. N.
Some Properties of Ring-Type Unstable Cavities with Angular Selection of Radiation. (T) Yu. A. Anan'ev and G. N. Vinokurov. 14, 1000 (1970) [39, 1327 (1969)]

VIROLAINEN, V. A.
Electron Energy Distribution in a High-Frequency Discharge. (E) S. D. Vagner, V. A. Virolainen, and Yu. M. Kagan. 14, 502 (1969) [39, 669 (1969)]

VISHNYAKOV, V. A.
Possible Increase in Maximum Current in a Traveling-Wave Linear Accelerator. (E/T) V. A. Vishnyakov, I. A. Grishaev, V. M. Grizhko, A. I. Zykov, and L. A. Makhnenko. 14, 231 (1969) [39, 321 (1969)]

VIZIR', V. A.
Operational Results with the 1.5 GeV Synchrotron at the Tomsk Polytechnical Institute. (E) V. A. Vizir', P. P. Krasnonosen'kikh, N. A. Lashuk, I. P. Chuchalin, and P. M. Shchanin. 14, 736 (1969) [39, 982 (1969)]

VLADIMIROV, V. I.
Investigation of an Electric Discharge Across a Laser Spark. (E) V. I. Vladimirov, G. M. Malyshev, G. T. Razdobarin, and V. V. Semenov. 14, 677 (1969) [39, 906 (1969)]

VLASOV, M. A.
Ion-Acoustic Oscillations in an Inhomogeneous Plasma. (E) M. A. Vlasov. 14, 10 (1969) [39, 18 (1969)]

VOL'F, E. M.
Effect of Space Charge and Diffusion on the Electrical Conductivity of a Gas Ionized by an External Source. (T) E. M. Vol'f and V. S. Polikanov. 14, 99 (1969) [39, 143 (1969)]
Electrical Conductivity of a Gas Ionized by an External Source. (T) E. M. Vol'f and V. S. Polikanov. 14, 105 (1969) [39, 152 (1969)]

VOLOSOV, V. D.
Effect of Laser and Medium Parameters on Second-Harmonic Generation. (T) V. D. Volosov. 14, 1652 (1970) [39, 2188 (1969)]

VORONOV, A. Ya.
Possible Charge Separation in a Plasma by Recombination Radiation. (T) A. Ya. Voronov. 14, 580 (1969) [39, 770 (1969)]

VYATKIN, G. I.
Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]

VYAT-SKIN, A. Ya.
A Method for the Simultaneous Investigation of the Transmission, Reflection, and Absorption of Inert Gas Ions in Thin Solid Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 403 (1969) [39, 543 (1969)]
Interaction of He^+ Ions with Certain Metals. (E) A. Ya. Vyatskin, V. V. Alekseev, and K. A. Makarov. 14, 408 (1969) [39, 549 (1969)]
Investigation of Transmission, Reflection, and Absorption of He^+ Ions in Thin Semiconductor Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 413 (1969) [39, 554 (1969)]

VYSOTSKII, M. G.
Selection of Longitudinal Modes in a Ring Gas Laser. (E) V. Yu. Petrun'kin, M. G. Vysotskii, and R. I. Okunev. 14, 694 (1969) [39, 928 (1969)]

WATSON, A. M.
Interelectrode Processes in a Tenuous Plasma Stream with a Boundary Layer. (E/T) E. K. Chekalin and A. M. Watson. 14, 41 (1969) [39, 64 (1969)]

YAGOLA, V. V.
Motion of He^+ Ions through He in Crossed Fields. (E/T) L. L. Pasechnik and V. V. Yagola. 14, 1659 (1970) [39, 2198 (1969)]

YAKIMENKO, I. P.
Application of the Reciprocity Theorem to Scattering of Electromagnetic Waves by Fluctuations in a Bounded Plasma. (T) I. P. Yakimenko. 14, 602 (1969) [39, 800 (1969)]
Thermal Radiation of Certain Bodies. II. Inhomogeneous Sphere. (T) L. A. Nazarenko and I. P. Yakimenko. 14, 1030 (1970) [39, 1365 (1969)]
Incoherent Scattering of Electromagnetic Waves from a Plasma-Filled Waveguide. (T) I. P. Yakimenko. 14, 1632 (1970) [39, 2163 (1969)]

YAKUSHEV, E. M.
Impossibility of Producing Dispersive Electron-Optical Systems with Two-Dimensional Electrostatic and Magnetostatic Fields. (T) E. M. Yakushev. 14, 1458 (1970) [39, 1934 (1969)]
Strong Absorption of Electromagnetic Radiation in an Inhomogeneous Collisionless Plasma. (T) V. Ya. Davydovskii and E. M. Yakushev. 14, 1687 (1970) [39, 2236 (1969)]

YAMPOL'SKII, I. R.
Investigation of the $(2/3)\pi$ Hybrid EH_{11} Mode in an Iris-Loaded Waveguide. (T/E) I. R. Yampol'skii. 14, 900 (1970) [39, 1199 (1969)]

YANKELEVICH, Yu. B.
Spark Current and Voltage in Nanosecond Breakdown of a Gas Gap. (E) G. A. Mesyats, V. V. Kremnev, G. S. Korshunov, and Yu. B. Yankelevich. 14, 49 (1969) [39, 75 (1969)]

YANSON, I. K.
I-V Characteristics of Superconducting Tunnel Junctions. (E/T) I. Kh. Albegova, B. I. Borodai, I. K. Yanson, and I. M. Dmitrenko. 14, 681 (1969) [39, 911 (1969)]

YAREMENKO, Yu. G.
Structure of Two-Stream Oscillations Excited by an Electron Beam in a Plasma. (E) Yu. G. Yaremenko, V. M. Deev, S. M. Eremin, and I. F. Kharchenko. 14, 1158 (1970) [39, 1541 (1969)]
Detailed Structure of Beam-Plasma Instability. (E) V. A. Lavrovskii, V. M. Deev, S. A. Rogashkov, Yu. G. Yaremenko, and I. F. Kharchenko. 14, 1190 (1970) [39, 1586 (1969)]

YAROSLAVSKII, N. G.
Carbon Dioxide Dissociation in a CO_2 Laser. (E) E. S. Gasilevich, V. A. Ivanov, É. N. Lotkova, V. N. Ochkin, N. N. Sobolev, and N. G. Yaroslavskii. 14, 86 (1969) [39, 126 (1969)]

YARYSHEVA, M. D.
Electrodeless High-Frequency Pulsed Discharge in Inert Gases. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 769 (1969) [39, 1025 (1969)]
Investigation of the Energy Transfer Efficiency for a Pulsed Induction Discharge. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 774 (1969) [39, 1032 (1969)]

YASHIN, V. I.
Plasma Stability in a Corrugated Magnetic Field. (T) V. F. Aleksin and V. I. Yashin. 14, 1608 (1970) [39, 2130 (1969)]

YAVOR, I. P.
Hollow-Cathode Thermionic Converter Operating with a Low-Voltage Cesium Arc. (E) É. P. Busygin, V. G. Grigor'yants, and I. P. Yavor. 14, 1593 (1970) [39, 2119 (1969)]

YAVOR, S. Ya.
Theory of Weak Lenses in Electron Optics. (T) L. P. Ovsyannikova and S. Ya. Yavor. 14, 304 (1969) [39, 412 (1969)]
Application of Gauss Brackets to Calculations Involving Dispersive Electron-Optical Systems. (T) V. N. Chechulin and S. Ya. Yavor. 14, 1093 (1970) [39, 1457 (1969)]
Novel Triplet of Electrostatic Quadrupole-Octupole Lenses with Corrected Spherical Aberration. (E) E. V. Shpak, S. Ya. Yavor, O. R. Savin, and A. S. Kuzema. 14, 1294 (1970) [39, 1720 (1969)]
Design of Electron-Optical Quadrupole-Octupole Correcting Lenses. (T/E) E. V. Shpak and S. Ya. Yavor. 14, 1297 (1970) [39, 1723 (1969)]

YAVNOSHAN, F. V.
Fields in Complex Waveguide Combinations. (T) O. G. Vendik, I. G. Mironenko, and F. V. Yavnoshan. 14, 357 (1969) [39, 483 (1969)]

YEGUDAEV, A. M.
Electrode Erosion Mechanism in a Pulsed Vacuum Discharge. (E) V. I. Rakhovskii and A. M. Yegudaev. 14, 227 (1969) [39, 317 (1969)]

YUFEROV, V. B.
Cryosorption Pumping in the Range 760 torr to Ultrahigh Vacuum. (E) P. M. Kobsev, Yu. V. Kholod, and V. B. Yuferov. 14, 424 (1969) [39, 567 (1969)]
Pumping of Helium by Condensed Layers of Gases in the Pressure Range 10^{-9} to 10^{-13} torr. (E) V. B. Yuferov and P. M. Kobzev. 14, 427 (1969) [39, 571 (1969)]
Investigation of Cryosorption Extraction of Helium, Hydrogen, and Deuterium by Layers of Condensed Gases. (E) V. B. Yuferov and P. M. Kobzev. 14, 1261 (1970) [39, 1683 (1969)]
Supersonic Gas Jet as a Vacuum Seal. (T/E) M. Yu. Bredikhin, A. M. Il'chenko, E. I. Skibenko, and V. B. Yuferov. 14, 1573 (1970) [39, 2092 (1969)]
Cryogenically Cooled Channels as Differential Pumping Systems. (T/E) V. B. Yuferov, E. I. Skibenko, and B. V. Glasov. 14, 1577 (1970) [39, 2097(1969)]

YURKOV, I. M.
Effect of a Metal Sheet on the Radiation from a Charge Moving Parallel to the Boundary between Two Dielectrics. (T) L. G. Naryshkina and I. M. Yurkov. 14, 1360 (1970) [39, 1810 (1969)]

YUSHKOV, Yu. G.
The Undulator Synchrotron. (E/T) G. P. Fomenko and Yu. G. Yushkov. 14, 1243 (1970) [39, 1658 (1969)]

ZAIDEL', A. N.
Stress Distribution in Transparent Objects by Holographic Interferometry. (E) A. N. Zaidel', V. S. Listovets, and Yu. I. Ostrovskii. 14, 1678 (1970) [39, 2225 (1969)]

ZAITSEV, A. A.
Effect of Discharge Fluctuations on the Output of a Laser. (E) A. A. Zaitsev, V. F. Makhrov, I. A. Savchenko, and B. N. Shvilkin. 14, 575 (1969) [39, 764 (1969)]

ZALKIND, V. M.
Mass-Energy Measurements of Plasma Trapped in the Aperture of a Divertor in Injection through a Magnetic Slot. (E) V. M. Zalkind, V. G. Zykov, V. I. Karpukhin, N. I. Rudnev, and V. T. Tolok. 14, 925 (1970) [39, 1231 (1969)]

ZAPRYAGAEV, A. F.
Selection of Longitudinal Modes in a Gas Laswer with a Three-Mirror Resonator. (E) I. M. Belousova, O. B. Danilov, and A. F. Zapryagaev. 14, 1676 (1970) [39, 2223 (1969)]

ZASHKVARA, V. V.
Beam Focusing by an Electrostatic Mirror with a Cylindrical Field. (E/T) V. V. Zashkvara and V. S. Red'kin. 14, 1089 (1970) [39, 1452 (1969)]

ZEMSKOV, A. I.
Pulsed Discharges in Dielectric Chambers. (E) A. M. Andrianov, A. I. Zemskov, V. V. Prut, and V. A. Khrabrov. 14, 318 (1969) [39, 433 (1969)]

ZERZDKINA, T. K.
Theory of Thermionic Converters with Volume Ionization. (T/E) V. A. Shustov and T. K. Zerzdkina. 14, 1339 (1970) [39, 1913 (1969)]

ZHEREBTSOV, V. A.
Electrostatic Instability Criterion for a Plasma with an Irregular Distribution Function. (E) V. A. Zherebtsov. 14, 1212 (1970) [39, 1617 (1969)]

ZHILINSKII, A. P.
Afterglow Diffusion in Various Gases. (E/T) V. V. Bulanin, A. P. Zhilinskii, and V. I. Smirnov. 14, 464 (1969) [39, 617 (1969)]
Instability of an Afterglow Plasma in a Magnetic Field. (E) V. V. Bulanin, V. E. Golant, and A. P. Zhilinskii. 14, 712 (1969) [39, 948 (1969)]

ZHUKOV, S. V.
Boundary Conditions for the Determination of Time-Varying Magnetic Fields near Thin Metal Shells. (T) S. V. Zhukov. 14, 865 (1970) [39, 1149 (1969)]

ZNAMENSKII, V. B.
Level Populations in a Hollow-Cathode Discharge in Neon. (E/T) I. M. Belousova and V. B. Znamenskii. 14, 859 (1970) [39, 1140 (1969)]

ZORIK, V. Ya.
Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]

ZVEREVA, F. G.
High Frequency Oscillations in Beam-Plasma Interactions. (E) O. S. Shcheglov and F. G. Zvereva. 14, 23 (1969) [39, 37 (1969)]

ZVEZDKINA, T. K.
Optimum Electrical Power of Thermionic Converters with Mo, W, Re, and Ir Cathodes. (E) V. A. Shustov and T. K. Zvezdkina. 14, 1683 (1970) [39, 2231 (1969)]

ZVYAGINTSEV, A. V.
High-Current Pulsed Hydrogen Arc at Pressures up to 400 Atmospheres. (E) V. I. Petrenko, R. V. Mitin, Yu. R. Knyazev, and A. V. Zvyagintsev. 14, 1373 (1970) [39, 1827 (1969)]

ZYKOV, A. I.
Possible Increase in Maximum Current in a Travelling-Wave Linear Accelerator. (E/T) V. A. Vishnyakov, I. A. Grishaev, V. M. Grizhko, A. I. Zykov, and L. A. Makhnenko. 14, 231 (1969) [39, 321 (1969)]
Measurement of the Phase Spectrum of Accelerated Electrons Using a High-Frequency Separator. (E/T) A. I. Zykov, G. D. Kramskoi, and E. K. Ostrovskii. 14, 756 (1969) [39, 1007 (1969)]
Excitation of Hybrid Oscillations of a Relativistic Electron Beam in an Iris-Loaded Waveguide. (E) V. M. Grizhko, A. I. Zykov, I. A. Grishaev, and G. D. Kratskoi. 14, 1234 (1970) [39, 1646 (1969)]
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

ZYKOV, V. G.
Plasma Injection into a Stellarator through a Divertor. (E/T) V. G. Zykov and N. I. Rudnev. 14, 918 (1970) [39, 1223 (1969)]
Mass-Energy Measurements of Plasma Trapped in the Aperture of a Divertor in Injection through a Magnetic Slot. (E) V. M. Zalkind, V. G. Zykov, V. I. Karpukhin, N. I. Rudnev, and V. T. Tolok. 14, 925 (1970) [39, 1231 (1969)]

SOVIET PHYSICS – TECHNICAL PHYSICS

Volume 14, 1969

A translation of Zhurnal Tekhnicheskoi Fiziki

Accelerators
Apparatus
Atomic Physics
Cryogenics
Crystalline State
Dielectrics and Dielectric Phenomena
Diffusion
Electrical Discharges
Electromagnetic Waves and Fields
Electron and Ion Beams
Electron and Ion Emission and Absorption
Electron and Ion Optics
Electrostatics and Electrodynamics
Elementary Particles
Errata
Fluid and Gas Dynamics
Ionization
Magnetic Phenomena
Magnetohydrodynamics and Magnetohydrostatics
Magnetics
Masers and Lasers
Mathematical Physics
Metal Physics
Microwaves
Miscellaneous
Molecular Physics
Optics and Optical Techniques
Plasma Diagnostics
Plasma Physics
Plasma Radiation
Plasma Stability
Plasmoids
Radiation
Resonance
Scattering
Semiconductors
Shock Waves
Superconductivity
Surface Phenomena
Thermoelectricity
Thermonuclear Fusion
Vacuum Technology
Waveguides

ACCELERATORS

Stability of a Magnetized Plasma in a Strong High Frequency Field. (T) L. M. Gorbunov and V. P. Silin. 14, 1 (1969) [39, 3 (1969)]

Theory of a Linear Induction Accelerator. (T) I. M. Matora. 14, 134 (1969) [39, 190 (1969)]

Beam Shaping System for a 2 GeV Electron Accelerator. (E/T) I. A. Grishaev, N. A. Kovalenko, V. I. Kolosov, and V. V. Petrenko. 14, 139 (1969) [39, 197 (1969)]

Method of Producing a Betatron Field. (T) I. M. Vaisburd. 14, 143 (1969) [39, 203 (1969)]

Possible Increase in Maximum Current in a Travelling-Wave Linear Accelerator. (E/T) V. A. Vishnyakov, I. A. Grishaev, V. M. Grizhko, A. I. Zykov, and L. A. Makhnenko. 14, 231 (1969) [39, 321 (1969)]

Phase Stability of an Intense Beam in a Relativistic Storage Ring. (T) M. M. Karliner, G. N. Ostreiko, and I. A. Shekhtman. 14, 235 (1969) [39, 326 (1969)]

Erosion Electrodynamic Plasma Accelerator with Inductive Energy Storage. (T) V. M. Gurov and N. A. Khizhnyak. 14, 338 (1969) [39, 458 (1969)]

Calibration of Tracking Electrodes in Proton Synchrotrons. (E) G. S. Kazanskii, A. I. Mikhailov, A. P. Tsarenkov, and K. V. Chekhlov. 14, 363 (1969) [39, 492 (1969)]

Measurement of Charge Phase Distribution in a Travelling-Wave Linear Accelerator. (E) G. M. Ivanov, V. V. Pilipenko, L. A. Makhenko, and A. N. Dovbnya. 14, 369 (1969) [39, 500 (1969)]

High-Current Electron Beam in a Linear Induction Accelerator. (T) Yu. P. Vakhrushin and V. S. Kuznetsov. 14, 374 (1969) [39, 506 (1969)]

Limiting Velocity of Plasmoids in Electrodynamic Accelerators. (T) V. N. Grigor'ev. 14, 491 (1969) [39, 653 (1969)]

Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]

Effect of Shielding on the Negative Mass Effect. (T) I. N. Ivanov. 14, 732 (1969) [39, 976 (1969)]

Operational Results with the 1.5 GeV Synchrotron at the Tomsk Polytechnical Institute. (E) V. A. Vizir', P. P. Krasnonosen'kikh, N. A. Lashuk, I. P. Chuchalin, and P. M. Shchanin. 14, 736 (1969) [39, 982 (1969)]

Measurement of the Phase Spectrum of Accelerated Electrons Using a High-Frequency Separator. (E/T) A. I. Zykov, G. D. Kramskoi, and E. K. Ostrovskii. 14, 756 (1969) [39, 1007 (1969)]

Particle Trapping in a Synchrotron. (T) E. M. Moroz 14, 903 (1969) [39, 1203 (1969)]

Polarized Negative Deuteron Injector for a Tandem Accelerator. (E) R. P. Slabospitskii, I. E. Kiselev, I. M. Karnaukhov, I. D. Lopatko, and A. Ya. Taranov. 14, 1129 (1969) [39, 1506 (1969)]

The Undulator Synchrotron. (E/T) G. P. Fomenko and Yu. G. Yushkov. 14, 1243 (1970) [39, 1658 (1969)]

Effect of Ionization and Recombination on the Electrodynamic Acceleration of a Plasma. (T) P. M. Kolesnikov. 14, 1316 (1970) [39, 1750 (1969)]

Parametric Resonance in Strong-Beam Accelerators. (T) V. I. Balbekov and I. A. Shukeilo. 14, 1401 (1970) [39, 1863 (1969)]

Matching of a Microtron Resonator to a Waveguide. (T/E) I. M. Matora and R. V. Khar'yuzov. 14, 1506 (1970) [39, 1997 (1969)]

Accelerator Output Devices. (T) V. P. Belov and A. M. Kokorin. 14, 1520 (1970) [39, 2018 (1969)]

Design of High-Q Cavities and Sections of Iris-Loaded Waveguides with Large Apertures for Particles. (T/E) A. N. Didenko and R. G. Kaminskaya. 14, 1527 (1970) [39, 2029 (1969)]

Prebunching in a High-Current Linear Ion Accelerator with a Low Injection Energy. (T) V. A. Enal'skii, V. V. Osipov, A. P. Fedotov, and B. K. Shembel'. 14, 1530 (1970) [39, 2034 (1969)]

Possible Mechanism for the Formation of the Fast Component in an Electrodynamically Accelerated Plasmas. (T) N. A. Khizhnyak. 14, 1534 (1970) [39, 2040 (1969)]

Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. (E) G. D. Kramskoi, I. A. Grishaev, A. I. Zykov, V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko. 14, 1543 (1970) [39, 2054 (1969)]

Optical Characteristics of the Beam of a Linear Electron Accelerator. (E) G. K. Dem'yanenko and P. M. Ryabka. 14, 1622 (1970) [39, 2150 (1969)]
Design Parameters for a Monochromatic External Cyclotron Beam. (E) Yu. G. Basargin. 14, 1696 (1970) [39, 2247 (1969)]

APPARATUS

Retardation Method for Plasma Measurements. (E) E. A. Bakulin, E. V. Stepin, and V. V. Shcherbinina. 14, 77 (1969) [39, 114 (1969)]
Coincidence Method for Studying Charge-Exchange in Proton-Inert Gas Interactions. (E) V. V. Afrosimov, Yu. A. Mamaev, M. N. Panov, and N. V. Federenko. 14, 109 (1969) [39, 159 (1969)]
Design of Cooled Solenoids for the Production of Pulsed Magnetic Fields. (E/T) V. G. Kotenko and A. G. Limar'. 14, 290 (1969) [39, 395 (1969)]
Effect of Refraction on the Interferometric Measurements of Electron Density. (T) B. Anichin. 14, 354 (1969) [39, 478 (1969)]
A Method for the Simultaneous Investigation of the Transmission, Reflection, and Absorption of Inert Gas Ions in Thin Solid Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 403 (1969) [39, 543 (1969)]
Cryosorption Pumping in the Range 760 torr to Ultrahigh Vacuum. (E) P. M. Kobsev, Yu. V. Kholod, and V. B. Yuferov. 14, 424 (1969) [39, 567 (1969)]
Pumping of Helium by Condensed Layers of Gases in the Pressure Range 10^{-9} to 10^{-12} torr. (E) V. B. Yuferov and P. M. Kobzev. 14, 427 (1969) [39, 571 (1969)]
Velocity of Plasma Inhomogeneities in Crossed Electric and Magnetic Fields. (T) I. B. Chekmarev, S. I. Rozov, and E. M. Drobyshevskii. 14, 496 (1969) [39, 660 (1969)]
Spectroscopic Investigation of a Low-Voltage Low-Pressure Cesium Arc. (E) M. A. Lebedev, S. A. Maev, G. G. Morozova, and I. I. Smirenkina. 14, 505 (1969) [39, 673 (1969)]
Measurement of the Phase Spectrum of Accelerated Electrons Using a High-Frequency Separator. (E/T) A. I. Zykov, G. D. Kramskoi, and E. K. Ostrovskii. 14, 756 (1969) [39, 1007 (1970)]
Investigation of Preignition Processes in Trigratrons Operating in Air. (E) P. I. Shkuropat. 14, 943 (1970) [39, 1256 (1969)]
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]
Gravitational Wave Detector with a Superconducting Resonance Element. (T) G. Ya. Lavrent'ev. 14, 989 (1970) [39, 1316 (1969)]
Measurement of Electron Energy Distribution in the Presence of Oscillations. (E) S. S. Gulidov, Yu. M. Kagan, N. B. Kolokolov, and V. M. Milenin. 14, 993 (1970) [39, 1321 (1969)]
Reproducibility of Delay Time for Breakdown of High-Pressure Triggered Spark Gaps. (E) G. S. Korshunov, N. S. Rudenko, and V. I. Tsvetkov. 14, 1074 (1970) [39, 1430 (1969)]
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]
Investigation of Cryosorption Extraction of Helium, Hydrogen, and Deuterium by Layers of Condensed Gases. (E) V. B. Yuferov and P. M. Kobzev. 14, 1261 (1970) [39, 1683 (1969)]

ATOMIC PHYSICS

Interaction of He^+ Ions with Certain Metals. (E) A. Ya. Vyatskin, V. V. Alekseev, and K. A. Makarov. 14, 408 (1969) [39, 549 (1969)]
Investigation of Transmission, Reflection, and Absorption of He^+ Ions in Thin Semiconductor Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 413 (1969) [39, 554 (1969)]
Spectrum of Electrons Emitted in Atomic Collisions. (E) G. N. Ogurtsov, I. P. Flaks, and S. V. Avakyan. 14, 972 (1970) [39, 1293 (1969)]
Determination of the Heat of Desorption of Potassium and Cesium Ions and Atoms on Tungsten, Molybdenum, and Tantalum Surfaces. (E) N. I. Ionov, E. N. Lebedev, and Ts. S. Marinova. 14, 995 (1970) [39, 1323 (1969)]
Surface Ionization of Easily Ionized Atoms in the Threshold Temperature Region. (T/E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1423 (1970) [39, 1893 (1969)]

CRYOGENICS

Cryosorption Pumping in the Range 760 torr to Ultrahigh Vacuum. (E) P. M. Kobsev, Yu. V. Kholod, and V. B. Yuferov. 14, 424 (1969) [39, 567 (1969)]
Pumping of Helium by Condensed Layers of Gases in the Pressure Range 10^{-9} to 10^{-12} torr. (E) V. B. Yuferov and P. M. Kobzev. 14, 427 (1969) [39, 571 (1969)]
Investigation of Cryosorption Extraction of Helium, Hydrogen, and Deuterium by Layers of Condensed Gases. (E) V. B. Yuferov and P. M. Kobzev. 14, 1261 (1970) [39, 1683 (1969)]
Cryogenically Cooled Channels as Differential Pumping Systems. (T/E) V. B. Yuferov, E. I. Skibenko, and B. V. Glasov. 14, 1577 (1970) [39, 2097 (1969)]

CRYSTALLINE STATE

Anisotropic Stability of Calcite ($CaCO_3$) Against Laser Radiation. (E) A. A. Poplavskii and L. D. Khazov. 14, 299 (1969) [39, 407 (1969)]
Phase Transitions of Potassium Chloride and Its Alloys with Rubidium Chloride at High Pressures. (E) L. D. Livshits, Yu. N. Ryabinin, and L. V. Larionov. 14, 837 (1969) [39, 1115 (1969)]
Capillary Phenomena and the Crystallization of Specimens in Specified Shapes. (T) A. I. Saet and V. A. Tatarchenko. 14, 979 (1970) [39, 1302 (1969)]
Certain Properties of Transition Radiation in Uniaxial Crystals. (T) O. S. Mergelyan. 14, 1673 (1970) [39, 2220 (1969)]

DIELECTRICS AND DIELECTRIC PHENOMENA

Pulsed Discharges in Dielectric Chambers. (E) A. M. Andrianov, A. I. Zemskov, V. V. Prut, and V. A. Kharabrov. 14, 318 (1969) [39, 433 (1969)]
Effective Charge Density and Electric Field at a Dielectric Surface. (T) Yu. K. Golikov, L. A. Serebrov, and K. G. Utkin. 14, 708 (1969) [39, 944 (1969)]
Effect of Cathode Surface State on the Dielectric Strength of Gases and Liquids. (E) Yu. L. Stankevich and V. G. Kalinin. 14, 949 (1970) [39, 1264 (1969)]
Permittivity of Inhomogeneous Materials. (T) A. G. Fokin and T. D. Shermergor. 14, 984 (1970) [39, 1308 (1969)]
Interaction of Electromagnetic Waves with Interpenetrating Dielectric Media with Different Velocities. (T) S. N. Stolyarov. 14, 1044 (1970) [39, 1388 (1969)]
Effect of a Metal Sheet on the Radiation from a Charge Moving Parallel to the Boundary between Two Dielectrics. (T) L. G. Naryshkina and I. M. Yurkov. 14, 1360 (1970) [39, 1810 (1969)]
New Method for Measurement of Permittivity at Millimeter and Submillimeter Wavelengths. I. Permittivity of Thin Films. (E/T) V. V. Pilipenko, G. G. Polovnikov, V. G. Solugub, and V. P. Shestopalov. 14, 1662 (1970) [39, 2203 (1969)]

DIFFUSION

Electron Recombination Coefficient with Three Body Collisions in a Plasma. (T) I. S. Veselovskii. 14, 193 (1969) [39, 271 (1969)]
Determination of Excess Heat Functions of Binary Gas Mixtures from Temperature Effects in Steady-State Interdiffusion. (T/E) L. S. Kotousov and V. V. Baranyuk. 14, 273 (1969) [39, 372 (1969)]
Determination of the Amount of Gas Transported by Hydrodynamic Flow in Interdiffusion. (E) N. D. Kosov and Z. I. Novosad. 14, 435 (1969) [39, 582 (1969)]

Afterglow Diffusion in Various Gases. (E/T) V. V. Bulanin, A. P. Zhilinskii, and V. I. Smirnov. 14, 464 (1969) [39, 617 (1969)]
Anomalous Diffusion in a Collisional Plasma in a Magnetic Field. (T) A. M. Fridman. 14, 484 (1969) [39, 644 (1969)]
Thermal-Diffusion Pressure Effect. (E/T) N. D. Kosov, A. F. Bogatyrev, and L. I. Kurlapov. 14, 841 (1969) [39, 1119 (1969)]

ELECTRICAL DISCHARGES

Interelectrode Processes in a Tenuous Plasma Stream with a Boundary Layer. E. K. Chekalin and A. M. Watson. 14, 41 (1969) [39, 64 (1969)]
Spark Current and Voltage in Nanosecond Breakdown of a Gas Gap. (E) G. A. Mesyats, V. V. Kremnev, G. S. Korshunov, and Yu. B. Yankelevich. 14, 49 (1969) [39, 75 (1969)]
Certain Problems in Calculating the Temperature of ac Arcs. (T/E) V. P. Uraev. 14, 54 (1969) [39, 82 (1969)]
Probe Measurements of a Knudsen Arc in Argon. (E) Yu. A. Byrdin and A. F. Nastoyashchii. 14, 65 (1969) [39, 98 (1969)]
Dynamics of Gas Separation in a Glow Discharge. (T) Yu. A. Pekar. 14, 83 (1969) [39, 122 (1969)]
Investigation of the Electronic Component of the Thermal Flux under Arc Conditions in a Thermionic Converter. (E) V. A. Maksimov and A. S. Titkov. 14, 115 (1969) [39, 166 (1969)]
Contraction of a Positive Column. I. (E) V. Yu. Baranov and K. N. Ul'yanov. 14, 176 (1969) [39, 249 (1969)]
Contraction of a Positive Column. II. (T) V. Yu. Baranov and K. N. Ul'yanov. 14, 183 (1969) [39, 259 (1969)]
Chain Mechanism for the Development of an Arc Discharge in Crossed Electric and Magnetic Fields. (E) Yu. G. Kononenko, O. Ya. Savchenko, and E. V. Shun'ko. 14, 191 (1969) [39, 269 (1969)]
Investigation of the Microwave Oscillations Excited in a Gas Discharge by an Electron Beam. (E) I. E. Sakharov. 14, 198 (1969) [39, 278 (1969)]
Plasma Flow from a Hot-Cathode Penning Discharge into a Vacuum Region with no Magnetic Field. (E) M. D. Gabovich, L. I. Romanyuk, and V. V. Ustalov. 14, 207 (1969) [39, 291 (1969)]
Hollow Cathode in a Low-Pressure Penning Discharge. (E) G. G. Vasil'eva and Yu. E. Kreindel'. 14, 213 (1969) [39, 298 (1969)]
Self-Sustaining Discharge in a Moving Gas. (E/T) V. A. Nesterov, I. B. Bubashov, and V. I. Chaplii. 14, 216 (1969) [39, 302 (1969)]
Electrode Erosion Mechanism in a Pulsed Vacuum Discharge. (E) V. I. Rakhovskii and A. M. Yegudaev. 14, 227 (1969) [39, 317 (1969)]
Stability Mechanism for Ball Lightning. (E) M. T. Dmitriev. 14, 284 (1969) [39, 387 (1969)]
Pulsed Discharge in Dielectric Chambers. (E) A. M. Andrianov, A. I. Zemskov, V. V. Prut, and V. A. Khrabrov. 14, 318 (1969) [39, 433 (1969)]
Study of an Oscillatory Electron-Ion Discharge in a Longitudinal Magnetic Field. (E) V. M. Rashkovan, V. P. Demutskii, and N. A. Khizhnyak. 14, 333 (1969) [39, 452 (1969)]
Theory of the Electrodic Sheath in a Low-Temperature Plasma. (T) F. G. Baksht, B. Ya. Moizhes, and V. A. Nemchinskii. 14, 417 (1969) [39, 558 (1969)]
Emission of Energetic Ions from a Penning Discharge in an Inhomogeneous Magnetic Field. (E) R. A. Demirkhanov, Yu. V. Kursanov, and L. P. Skripal'. 14, 500 (1969) [39, 666 (1969)]
Electron Energy Distribution in a High-Frequency Discharge. (E) S. D. Vagner, V. A. Virolainen, and Yu. M. Kagan. 14, 502 (1969) [39, 669 (1969)]
Spectroscopic Investigation of a Low-Voltage Low-Pressure Cesium Arc. (E) M. A. Labedev, S. A. Maev, G. G. Morozova, and I. I. Smirenkina. 14, 505 (1969) [39, 673 (1969)]
Investigation of Physical Processes in an Electrode-Discharge Shock Tube. (E) L. I. Grechikhin, B. B. Davydov, and L. Ya. Min'ko. 14, 518 (1969) [39, 689 (1969)]
Discharge in a Penning Tube and in a Cylindrical Magnetron At Low Pressures. (T/E) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 522 (1969) [39, 694 (1969)]
Time for Production of a Discharge. (T) V. M. Kirilenko. 14, 556 (1969) [39, 738 (1969)]
Growth of a Spark Discharge in a Wide Air Gap. (T) G. N. Aleksandrov. 14, 560 (1969) [39, 744 (1969)]
Effect of Discharge Fluctuations on the Output of a Laser. (E) A. A. Zaitsev, V. F. Makhrov, I. A. Savchenko, and B. N. Shvilkin. 14, 575 (1969) [39, 764 (1969)]
Electrical Characteristics of a Pulsed Discharge in a Liquid. I. (E/T) I. Z. Okun'. 14, 627 (1969) [39, 837 (1969)]
Electrical Characteristics of a Pulsed Discharge in a Liquid. II. (E/T) I. Z. Okun'. 14, 636 (1969) [39, 850 (1969)]
Investigation of an Electric Discharge Across a Laser Spark. (E) V. I. Vladimirov, G. M. Malyshev, G. T. Razdobarin, and V. V. Semenov. 14, 677 (1969) [39, 906 (1969)]
Instability of an Afterglow Plasma in a Magnetic Field. (E) V. V. Bulanin, V. E. Golant, and A. P. Zhilinskii. 14, 712 (1969) [39, 948 (1969)]
Distribution Function of an Electron Beam in a Beam-Plasma Discharge. (E) E. G. Shustin, V. P. Popovich, and I. F. Kharchenko. 14, 745 (1969) [39, 993 (1969)]
Experimental Investigation of an RF Discharge Used as a Plasma Waveguide. (E) A. M. Egorov, A. F. Kivshik, and L. I. Bolotin. 14, 765 (1969) [39, 1020 (1969)]
Electrodeless High-Frequency Pulsed Discharge in Inert Gases. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 769 (1969) [39, 1025 (1969)]
Investigation of the Energy Transfer Efficiency for a Pulsed Induction Discharge. (E) S. I. Andreev, O. G. Baikov, P. N. Dashuk, E. A. Sergeenkova, and M. D. Yarysheva. 14, 774 (1969) [39, 1032 (1969)]
Evaluation of the Effect of Electromagnetic Forces on the Channel of a Constricted Induction Discharge. (E) B. M. Dymshits and Ya. P. Koretskii. 14, 779 (1969) [39, 1039 (1969)]
The Center Potential and Electron Density in a Penning Discharge. (T/E) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 783 (1969) [39, 1044 (1969)]
Dependence of Current on Parameters in a Penning Discharge. (T/E) É. M. Reikhrudel', G. V. Smirnitskaya, and Nguen Khyu Ti. 14, 789 (1969) [39, 1052 (1969)]
Metal Sputtering by the Cathode Spot of a Vacuum Arc. (E) B. N. Klyarfel'd, N. A. Neretina, and N. N. Druzhinina. 14, 796 (1969) [39, 1061 (1969)]
Photoeffect in Electron Emission from the Cathode in a Glow Discharge in Kr and Xe. (T/E) B. N. Klyarfel'd and B. I. Moskalev. 14, 800 (1969) [39, 1066 (1969)]
Retrograde Motion of the Cathode Spot in a Magnetic Field. (T) A. P. Nevskii. 14, 803 (1969) [39, 1070 (1969)]
Vacuum Breakdown with Controlled Electrode Surfaces. (E) P. N. Chistyakov, A. L. Radionovskii, N. V. Tatarinova, N. E. Novikov, and D. S. Treshchikova. 14, 807 (1969) [39, 1075 (1969)]
Initiation of Vacuum Breakdown by Metal Particles. (E) P. V. Poshekhonov, and M. M. Pogorel'skii. 14, 811 (1969) [39, 1080 (1969)]
Two-Step Development of a Current Pulse between Plane Electrodes. (E) O. A. Malkin and E. S. Trekhov. 14, 816 (1969) [39, 1086 (1969)]
Level Populations in a Hollow-Cathode Discharge in Neon. (E/T) L. M. Belousova and V. B. Znamenskii. 14, 859 (1969) [39, 1140 (1969)]
Longitudinal Potential Gradient in a Positive Column in H_2 and D_2. (E) L. N. Breusova. 14, 862 (1969) [39, 1143 (1969)]
Analysis of Spark Gap with a Series-Connected Capacitor. (E/T) Yu. M. Emel'yanov, V. G. Babayan, and Z. I. Ashurly. 14, 933 (1970) [39, 1241 (1969)]
Plasma Efficiency Coefficient δ in an Overdense Glow Discharge. (E) L. Yu. Abramovich, B. N. Klyarfel'd, and Yu. N. Nastich. 14, 939 (1970) [39, 1251 (1969)]
Propagation of Low-Frequency Longitudinal Waves in a Gas Discharge. (T) L. D. Tsendin. 14, 1013 (1970) [39, 1341 (1969)]
Pulsed Arcs in Argon and Helium at Microwave Frequencies. (E) E. S. Borovik, V. I. Petrenko, R. V. Mitin, V. P. Kantsedal, and Yu. R. Knyazev. 14, 1063 (1970) [39, 1416 (1969)]

Intensity Modulation of the Optical-Radiation Lines in an RF Discharge. (E) O. S. Akirtava, A. M. Bogus, and V. L. Dzhikiya. 14, 1070 (1970) [39, 1425 (1969)]
Reproducibility of Delay Time for Breakdown of High-Pressure Triggered Spark Gaps. (E) G. S. Korshunov, N. S. Rudenko, and V. I. Tsvetkov. 14, 1074 (1970) [39, 1430 (1969)]
Possible Mechanism for Discharges in Thunderstorms. (T) B. I. Savchenko. 14, 1079 (1970) [39, 1437 (1969)]
Transient Characteristics of a Spark Discharge in a Gas. (E) A. V. Kiselev. 14, 1083 (1970) [39, 1443 (1969)]
Effect of Perturbations in the Langmuir Cathode Sheath on the Rate of Ionization in Arc Discharges. (E) I. P. Stakhanov. 14, 1115 (1970) [39, 1486 (1969)]
Volt-Ampere Characteristics of a Low-Voltage Arc. (T/E) I. P. Stakhanov and I. I. Kasikov. 14, 1122 (1970) [39, 1496 (1969)]
Extension of the Pressure Range for Hollow Cathode Discharges. (E) A. A. Novikov and A. I. Soldatenko. 14, 1140 (1970) [39, 1521 (1969)]
X Rays from Pulsed Discharges in Air. (E) L. V. Tarasova and L. N. Khudyakova. 14, 1148 (1970) [39, 1530 (1969)]
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, V. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkesheladshvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]
Ionization of Polarized Atomic Hydrogen in a Penning Discharge. (E) Yu. A. Plis and L. M. Soroko. 14, 1216 (1970) [39, 1622 (1969)]
Ion Current Distribution at the Cathode Surface in a Low-Pressure Penning Discharge. (T) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 1219 (1970) [39, 1625 (1969)]
Possible Control of a Penning Discharge. (E) S. I. Ivanov. 14, (1969) [39, 1702 (1969)]
Mechanism for Electric Breakdown in High Vacuum. (E) L. I. Pranevichyus and I. Yu. Bartashyus. 14, 1301 (1970) [39, 1728 (1969)]
Electric Breakdown in Vacuum at Various Voltages. (E) I. N. Slivkov. 14, 1369 (1970) [39, 1822 (1969)]
High-Current Pulsed Hydrogen Arc at Pressures up to 400 Atmospheres. (E) V. I. Petrenko, R. V. Mitin, Yu. R. Knyazev, and A. V. Zvyagintsev. 14, 1373 (1970) [39, 1827 (1969)]
Transition from Field Emission to a Vacuum Arc. (E) G. N. Fursei and G. K. Kartsev. 14, 1442 (1970) [39, 1917 (1969)]
Excitation and Ionization in a Helium Microwave Discharge. (E/T) A. I. Maksimov. 14, 1500 (1970) [39, 1989 (1969)]
Corona Discharge in an Air Stream. (E) Yu. S. Bortnikov, V. A. Nesterov, I. B. Rubashov, and V. I. Chaplii. 14, 1579 (1970) [39, 2100 (1969)]
Theory of the Low-Voltage Arc in the Thermionic Converter. (T/E) A. A. Belokon' and É. B. Sonin. 14, 1583 (1970) [39, 2105 (1969)]
Hollow-Cathode Thermionic Converter Operating with a Low-Voltage Cesium Arc. (E) É. P. Busygin, V. G. Grigor'yants, and I. P. Yavor. 14, 1593 (1970) [39, 2119 (1969)]
Discharge Formation in Tubes. (T) L. N. Tunitskii and E. M. Cherkasov. 14, 1640 (1970) [39, 2173 (1969)]
Investigation of a Confined Hot-Cathode Discharge in a Magnetic Field. (E/T) O. V. Kozak and L. L. Pasechnik. 14, 1643 (1970) [39, 2177 (1969)]

ELECTROMAGNETIC WAVES AND FIELDS

Incoherent Reflection of Electromagnetic Waves from a Plasma. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 27 (1969) [39, 42 (1969)]
Thin Cylindrical Antenna in an Isotropic Plasma. (T) A. A. Andronov and V. Ya. Éidman. 14, 267 (1969) [39, 365 (1969)]
Application of the Reciprocity Theorem to Scattering of Electromagnetic Waves by Fluctuations in a Bounded Plasma. (T) I. P. Yakimenko. 14, 602 (1969) [39, 800 (1969)]
Diffraction of Plane Waves in an Open Resonator Formed by Parallel Strips. (E) A. T. Fialkovskii. 14, 647 (1969) [39, 805 (1969)]
Electromagnetic Field Due to an Elevated Point Source of Long-Range Radiation in Air above a Conducting Plane. (T) Yu. A. Medvedev, B. M. Stepanov, and G. V. Fedorovich. 14, 654 (1969) [39, 875 (1969)]
Radio Sounding of Glacier Inhomogeneities. (E) V. N. Rudakov and V. S. Luchininov. 14, 751 (1969) [36, 1001 (1969)]
Boundary Conditions for the Determination of Time-Varying Magnetic Fields near Thin Metal Shells. (T) S. V. Zhukov. 14, 865 (1970) [36, 1149 (1969)]
Excitation of the Electromagnetic Field by Flexural Vibrations of a Ferromagnet. (T/E) Yu. I. Nazarov and E. A. Svyadoshch. 14, 869 (1970) [39, 1155 (1969)]
Linear Selfconsistent Theory of Diffraction Radiation. (T) A. M. Radin, O. A. Tret'yakov, and V. P. Shestopalov. 14, 887 (1970) [39, 1180 (1969)]
Interaction of a Cylindrical Electromagnetic Wave and a Radial Electron Stream. (T) L. I. Korotun. 14, 1037 (1970) [39, 1377 (1969)]
Interaction of Electromagnetic Waves with Interpenetrating Dielectric Media with Different Velocities. (T) S. N. Stolyarov. 14, 1044 (1970) [39, 1388 (1969)]
The Stability of a Plasma Cylinder in the Field of a Traveling Magnetic Wave Taking Hall Currents into Account. (T) V. N. Starkova. 14, 1055 (1970) [39, 1405 (1969)]
Excitation of Electromagnetic Waves in an Electron Stream Passing Through a Waveguide with Imperfectly Conducting Walls. (T) K. N. Stepanov and A. A. Shishkin. 14, 1228 (1970) [39, 1638 (1969)]
Interaction of Simple Electromagnetic Waves in a Nonlinear Saturable Medium. (T) P. M. Kolesnikov. 14, 1311 (1970) [39, 1742 (1969)]
Diffraction of a Plane Electromagnetic Wave on an Ideally Conducting Plane with a Circular Aperture. (T) Yu. V. Pimenov and R. A. Metrikin. 14, 1451 (1970) [39, 1925 (1969)]
Reflection of Electromagnetic Waves from a Stratified Plasma. (T) V. I. Miroshnichenko. 14, 1473 (1970) [39, 1954 (1969)]
Axially Symmetric Electromagnetic Field in a Cylindrical Cavity Resonator with Conducting Irises or Drift Tubes. (T) V. G. Andreev. 14, 1516 (1970) [39, 2011 (1969)]
Incoherent Scattering of Electromagnetic Waves from a Plasma-Filled Waveguide. (T) I. P. Yakimenko. 14, 1632 (1970) [39, 2163 (1969)]
Strong Absorption of Electromagnetic Radiation in an Inhomogeneous Collisionless Plasma. (T) V. Ya. Davydovskii and E. M. Yakushev. 14, 1687 (1970) [39, 2236 (1969)]

ELECTRON AND ION BEAMS

High Frequency Oscillations in Beam-Plasma Interactions. (E) O. S. Shcheglov and F. G. Zvereva. 14, 23 (1969) [39, 37 (1969)]
Mean for Ionization Cross Sections of Neutral Beams by Electrons with a Maxwellian Velocity Distribution. (T) N. I. Alinovskii, Yu. E. Nesterikhin, and B. K. Pakhtusov. 14, 96 (1969) [39, 139 (1969)]
Beam Shaping System for a 2 GeV Electron Accelerator. (E/T) L. A. Grishaev, N. A. Kovalenko, V. I. Kolosov, and V. V. Petrenko. 14, 139 (1969) [39, 197 (1969)]
Interaction of a Modulated Charged-Particle Beam with a Plasma in a Magnetic Field. I. Excitation of Characteristic Plasma Oscillations by Modulated Electron Beams. (T) É. A. Pashitskii. 14, 149 (1969) [39, 209 (1969)]
Interaction of a Modulated Charged-Particle Beam with a Plasma in a Magnetic Field. II. Excitation of Characteristic Plasma Oscillations by Modulated Ion Beams. (T) É. A. Pashitskii. 14, 155 (1969) [39, 218 (1969)]
Investigation of the Microwave Oscillations Excited in a Gas Discharge by an Electron Beam. (E) I. S. Sakharov. 14, 198 (1969) [39, 278 (1969)]

Interaction of Microwave Oscillations and Low-Frequency Oscillations in a Beam-Plasma System. (E) S. M. Levitskii, V. Z. Shapoval, and T. P. Shashurin. 14, 343 (1969) [39, 465 (1969)]
Interaction of a Rotating Electron Beam with Asymmetric Modes in a Magnetized-Plasma Waveguide. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 439 (1969) [39, 587 (1969)]
Atomic-Beam Focussing in a Hexapole Magnetic System with Spherical Aberration. (T) N. I. Trotsyuk. 14, 529 (1969) [39, 704 (1969)]
Divergence of Ion Beams with Finite Phase Volume. (T) V. V. Vecheslavov and V. I. Kononov. 14, 702 (1969) [39,938 (1969)]
Distribution Function of an Electron Beam in a Beam-Plasma Discharge. (E) E. G. Shustin, V. P. Popovich, and I. F. Kharchenko. 14, 745 (1969) [39, 993 (1969)]
Interaction of a Cylindrical Electromagnetic Wave and a Radial Electron Stream. (T) L. I. Korotun. 14, 1037 (1970) [39, 1377 (1969)]
Structure of Two-Stream Oscillations Excited by an Electron Beam in a Plasma. (E) Yu. G. Yaremenko, V. M. Deev, S. M. Eremin, and I. F. Kharchenko. 14, 1158 (1970) [39, 1541 (1969)]
Cyclotron Interaction between an Electron Beam and the Fast Magnetosonic Wave. (E) A. I. Ermakov and N. I. Nazarov. 14, 1180 (1970) [39, 1573 (1969)]
Excitation of Electromagnetic Waves in an Electron Stream Passing Through a Waveguide with Imperfectly Conducting Walls. (T) K. N. Stepanov and A. A. Shishkin. 14, 1228 (1970) [39, 1638 (1969)]
Excitation of Hybrid Oscillations of a Relativistic Electron Beam in an Iris-Loaded Waveguide. (E) V. M. Grizhko, A. I. Zykov, I. A. Grishaev, and G. D. Kratskoi. 14, 1234 (1970) [39, 1646 (1969)]
Energy Losses in a High-Power Electron Beam. (E) I. I. Beilis, V. I. Rakhovskii, L. G. Tkachev, and M. Ya. Smelyanskii. 14, 1237 (1970) [39, 1650 (1969)]
Invariance of the Noise Parameters S and π in Electron Beams of Varying Cross Section. (T) A. F. Golubentsev. 14, 1398 (1970) [39, 1859 (1969)]
Parametric Resonance in Strong-Beam Accelerators. (T) V. I. Balbekov and I. A. Shukello. 14, 1401 (1970) [39, 1863 (1969)]
Two-Stream Ion Instability in a Plasma Traversed by an Ion Beam of Finite Dimensions. (T/E) A. A. Goncharov and G. S. Kirichenko. 14, 1492 (1970) [39, 1979 (1969)]
Prebunching in a High-Current Linear Ion Accelerator with a Low Injection Energy. (T) V. A. Enal'skii, V. V. Osipov, A. P. Fedotov, and B. K. Shembel'. 14, 1530 (1970) [39, 2034 (1969)]
Optical Characteristics of the Beam of a Linear Electron Accelerator. (E) G. K. Dem'yanenko and P. M. Ryabka. 14,1622 (1970)[39, 2150 (1969)]
Production of Nonmonochromatic Charged-Particle Beams Using Generalized Amplitude and Phase Functions. (T) Yu. N. Grigor'ev and V. V. Petrenko. 14, 1625 (1970) [39, 2154 (1969)]
Motion of He^+ Ions through He in Crossed Fields. (E/T) L. L. Pasechnik and V. V. Yagola. 14, 1659 (1970) [39, 2198 (1969)]
Design Parameters for a Monochromatic External Cyclotron Beam. (E) Yu. G. Basargin. 14, 1696 (1970) [39, 2247 (1969)]

ELECTRON AND ION EMISSION AND ABSORPTION

Investigation of the Electronic Component of the Thermal Flux under Arc Conditions in a Thermionic Converter. (E) V. A. Maksimov and A. S. Titkov. 14, 115 (1969) [39, 166 (1969)]
Current-Voltage Characteristics of a Thermionic Converter at High Current Densities. Ionization Equilibrium in the Plasma of the Low-Voltage Arc. (T) F. G. Baksht, I. L. Korobova, and B. Ya. Moizhes. 14, 300 (1969) [39, 408 (1969)]
A Method for the Simultaneous Investigation of the Transmission, Reflection, and Absorption of Inert Gas Ions in Thin Solid Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 403 (1969) [39, 543 (1969)]
Evaporation Rates of Carbide Thermionic Cathodes and Estimates of Operating Temperatures. (E) B. S. Kul'varskaya. 14, 548 (1969) [39, 728 (1969)]
Two Potential Distributions in Knudsen Flow Operation of a Thermionic Converter in a Transverse Magnetic Field. (E) A. Ya. Ender. 14, 762 (1969) [39, 1016 (1969)]
Photoeffect in Electron Emission from the Cathode in a Glow Discharge in Kr and Xe. (T/E) B. N. Klyarfel'd and B. I. Moskalev. 14, 800 (1969) [39, 1066 (1969)]
The Emission Properties of Tungsten–Rhenium Alloys. (E) N. D. Konovalov, V. A. Kuznetsov, and B. M. Tsarev. 14, 834 (1969) [39, 1110 (1969)]
Increasing the Total Field-Emission Current. (E) E. G. Shirokov, 14,1134 (1969) [39, 1513 (1969)]
Investigation of Oxygen Adsorption on Tungsten by Secondary Ion-Ion Emission. (E) V. F. Rybalko, B. Ya. Kolot, and Ya. M. Fogel'. 14, 1290 (1970) [39,1717 (1969)]
Theory of Thermionic Converters with Volume Ionization (T/E) V. A. Shustov and T. K. Zerzdkina. 14, 1339 (1970) [39, 1913 (1969)]
Transition from Field Emission to a Vacuum Arc. (E) G. N. Fursei and G. K. Kartsev. 14, 1442 (1970) [39, 1917 (1969)]
Theory of the Low-Voltage Arc in the Thermionic Converter. (T/E) A. A. Belokon' and É. B. Sonin. 14, 1583 (1970) [39, 2105 (1969)]
Hollow-Cathode Thermionic Converter Operating with a Low-Voltage Cesium Arc. (E) É. P. Busygin, V. G. Grigor'yants, and I. P. Yavor. 14, 1593 (1970) [39, 2119 (1969)]
Virtudal Cathode in a Spherical Diode. (T) B. V. Eliseev and Yu. P. Mordvinov. 14, 1637 (1970) [39, 2169 (1969)]
Optimum Electrical Power of Thermionic Converters with Mo, W, Re, and Ir Cathodes. (E) V. A. Shustov and T. K. Zvezdkina. 14, 1683 (1970) [39, 2231 (1969)]

ELECTRON AND ION OPTICS

Magnetooptical Systems with a Plane of Symmetry. (T) Yu. G. Basargin. 14, 171 (1969) [39, 241 (1969)]
Ion-Optical System of an Energy-Focusing Mass Spectrometer for Microimpurity Analysis. (T/E) R. N. Gall' 14, 263 (1969) [39, 360 (1969)]
Theory of Weak Lenses in Electron Optics. (T) L. P. Ovsyannikova and S. Ya. Yavor. 14, 304 (1969) [39, 412 (1969)]
Atomic-Beam Focussing in a Hexapole Magnetic System with Spherical Aberration. (T) N. I. Trotsyuk. 14, 529 (1969) [39, 704 (1969)]
Double-Focus Plasma Ion-Optical Systems. (T) A. I. Morozov. 14, 645 (1969) [39, 862 (1969)]
Doublet Consisting of Quadrupole-Octupole Lenses with Compensation for Spherical Aberration of the Image Width. (T) E. V. Shpak and I. A. Petrov. 14, 699 (1969) [39, 934 (1969)]
Electron-Optics Parameters of a Two-Electrode Cylindrical Mirror. I. (E) O. M. Artamonov and G. N. Brodskii. 14, 846 (1969) [39, 1126 (1969)]
Ion-Optical Matching by a Random-Search Method. (E) V. V. Vecheslavov and V. I. Kononov. 14, 907 (1969) [39, 1209 (1969)]
Compensation of Spherical Aberration in a Stigmatic Triplet of Short Quadrupole-Octupole Lenses. (T) T. Ya. Fishkova and E. V. Shpak. 14, 1006 (1970) [39, 1333 (1969)]
Beam Focusing by an Electrostatic Mirror with a Cylindrical Field. (E/T) V. V. Zashkvara and V. S. Red'kin. 14, 1089 (1970) [39, 1452 (1969)]
Application of Gauss Brackets to Calculations Involving Dispersive Electron-Optical Systems. (T) V. N. Chechulin and S. Ya. Yavor. 14, 1093 (1970) [39, 1457 (1969)]
Design Parameters of an Ion-Optical System for Transport and Analysis of a Beam Extracted from the 240-Centimeter Isochronous Cyclotron. (T) Yu. G. Basargin and L. E. Korolev. 14, 1109 (1970) [39, 1478 (1969)]
Noval Triplet of Electrostatic Quadrupole-Octupole Lenses with Corrected Spherical Aberration. (E) E. V. Shpak, S. Ya. Yavor, O. R. Savin, and A. S. Kuzema. 14, 1294 (1970) [39, 1720 (1969)]
Design of Electron-Optical Quadrupole-Octupole Correcting Lenses. (T/E) E. V. Shpak and S. Ya. Yavor. 14, 1297 (1970) [39, 1723 (1969)]

Path of Charged Particles through Three-Electrode Telescope Deflection Systems. (E/T) B. V. Bobykin, V. M. Kel'man, Yu. A. Nevinnyi, and L. M. Sekunova. 14, 1463 (1970) [39, 1941 (1969)]
Accelerator Output Devices. 1. Achromatic Magnetic Deflection Systems. (T) V. P. Belov and A. M. Kokorin. 14, 1520 (1970) [39, 2018 (1969)]
Production of Nonmonochromatic Charged-Particle Beams Using Generalized Amplitude and Phase Functions. (T) Yu. N. Grigor'ev and V. V. Petrenko. 14, 1625 (1970) [39, 2154 (1969)]
Design Parameters for a Monochromatic External Cyclotron Beam. (E) Yu. G. Basargin. 14, 1696 (1970) [39, 2247 (1969)]

ELECTROSTATICS AND ELECTRODYNAMICS

Amplification of Electric-Field Fluctuations Close to a Body in Plasma. (T) V. V. Smirnova. 14, 32 (1969) [39, 49 (1969)]
Exact Solutions of Certain Problems in Nonlinear Electrodynamics. (T) V. M. Fomin. 14, 447 (1969) [39, 593 (1969)]
Calculation of the Electric Field and Capacitance of Elongated and Flattened Bodies. (T) L. A. Tseitlin. 14, 872 (1970) [39, 1159 (1969)]
Adiabatic Approximation in Slow Motion of Charges in a Spatially Periodic Magnetic Field. (T) R. I. Kovtun. 14, 911 (1970) [39, 1215 (1969)]
Nonadiabatic Motion of a Charged Particle in a Uniform Time-Varying Magnetic Field. (T) L. G. Glikman and V. M. Kel'man. 14, 1151 (1970) [39, 1534 (1969)]
Energy Analyser for Charged Particles Focused by a Longitudinal Magnetic Field. (T) I. G. Kozlov and L. N. Kabanov. 14, 1280 (1970) [39, 1706 (1969)]
Eddy Currents in Thin Plates and Shells. (T) L. A. Tseitlin. 14, 1305 (1970) [39, 1733 (1969)]
Effect of a Metal Sheet on the Radiation from a Charge Moving Parallel to the Boundary between Two Dielectrics. (T) L. G. Naryshkina and I. M. Yurkov. 14, 1360 (1970) [39, 1810 (1969)]
Impossibility of Producing Dispersive Electron-Optical Systems with Two-Dimensional Electrostatic and Magnetostatic Fields. (T) E. M. Yakushev. 14, 1458 (1970) [39, 1934 (1969)]
Behavior of Charged Particles near Current-Carrying Elements of a Magnetic Shield. (T) D. Kh. Morozov. 14, 1512 (1970) [39, 2005 (1969)]
Field of a Charged Particle Moving along the Axis of an Optically Active Cylinder. (T) O. S. Mergelyan. 14, 1604 (1970) [39, 2125 (1969)]

ELEMENTARY PARTICLES

Method for Confinement of Electrons in Closed Systems. (E) B. P. Peregud. 14, 571 (1969) [39, 760 (1969)]
Measurement of the Phase Spectrum of Accelerated Electrons Using a High-Frequency Separator. (E/T) A. I. Zykov, G. D. Kramskoi, and E. K. Ostrovskii. 14, 756 (1969) [39, 1007 (1969)]
Particle Trapping in a Synchrotron. (T) E. M. Moroz 14, 903 (1970) [39, 1203 (1969)]
Measurement of Electron Energy Distribution in the Presence of Oscillations. (E) S. S. Gulidov, Yu. M. Kagan, N. B. Kolokolov, and V. M. Milenin. 14, 993 (1970) [39, 1321 (1969)]
Magnetic System of a Large Charged-Particle Spectrometer. (E/T) Yu. G. Basargin, N. I. Doinikov, A. V. Popov, B. V. Rozhdestvbenskii, G. N. Samsonov, and A. G. Simakov. 14, 1104 (1970) [39, 1472 (1969)]
Energy Analyser for Charged Particles Focused by a Longitudinal Magnetic Field. (T) I. G. Kozlov and L. N. Kabanov. 14, 1280 (1970) [39, 1706 (1969)]

ERRATA

Errata. 14, 1701 (1970) [39, 2292 (1969)]

FLUID AND GAS DYNAMICS

Determination of Potential Parameters from Viscosity. (E) B. A. Ivakin, P. E. Suemin, and A. S. Vakhlov. 14, 432 (1969) [39, 577 (1969)]
Determination of the Amount of Gas Transported by Hydrodynamic Flow in Interdiffusion. (E) N. D. Kosov and Z. I. Novosad. 14, 435 (1969) [39, 582 (1969)]
Vacuum Hydrogen Jet from a Supersonic Nozzle. (E) G. I. Dimov. 14, 512 (1969) [39, 681 (1969)]
Two Dimensional Flow of a Maxwellian Gas. (T) B. T. Porobnov and P. E. Suetin. 14, 563 (1969) [39, 748 (1969)]
Electrical Characteristics of a Pulsed Discharge in Liquid. I. (E/T) I. Z. Okun'. 14, 627 (1969) [39, 837 (1969)]
Electrical Characteristics of a Pulsed Discharge in a Liquid. II. (E/T) I. Z. Okun'. 14, 636 (1969) [39, 850 (1969)]
Gas-Dynamic Processes in Irradiation of Solids. (E/T) Yu. V. Afanas'ev, N. G. Basov, O. N. Krokhin, N. V. Morachevskii, and G. V. Sklizkov. 14, 669 (1969) [39, 894 (1969)]
Excess Thermodynamic Potential of Vapor-Gas Mixtures near 1 atm at 300-400°K. (T) L. S. Kotousov. 14, 1003 (1970) [39, 1330 (1969)]
Supersonic Gas Jet as a Vacuum Seal. (T/E) M. Yu. Bredikhin, A. M. Il'chenko, E. I. Skibenko, and V. B. Yuferov. 14, 1573 (1970) [39, 2092 (1969)]
Gas Motion behind a Strong Shock Front with Radiation Losses. (T) V. A. Metelitsyn. 14, 1670 (1970) [39, 2215 (1969)]
The Langmuir Law and the Hydrodynamic Solution for One-Dimensional Motion of a Charged Gas. (T) I. B. Chekmarev. 14, 1695 (1970) [39, 2245 (1969)]

IONIZATION

Effect of Space Charge and Diffusion on the Electrical Conductivity of a Gas Ionized by an External Source. (T) E. M. Vol'f and V. S. Polikanov. 14, 99 (1969) [39, 143 (1969)]
Electrical Conductivity of a Gas Ionized by an External Source. (T) E. M. Vol'f and V. S. Polikanov. 14, 105 (1969) [39, 152 (1969)]
Coincidence Method for Studying Charge-Exchange in Proton-Inert Gas Interactions. (E) V. V. Afrosimov, Yu. A. Mamaev, M. N. Panov, and N. V. Federenko. 14, 109 (1969) [39, 159 (1969)]
Investigation of the Electronic Component of the Thermal Flux under Arc Conditions in a Thermionic Converter. (E) V. A. Maksimov and A. S. Titkov. 14, 115 (1969) [39, 166 (1969)]
Current-Voltage Characteristics of a Thermionic Converter at High Current Densities. Ionization Equilibrium in the Plasma of the Low-Voltage Arc. (T) F. G. Baksht, I. L. Korobova, and B. Ya. Moizhes. 14, 300 (1969) [39, 408 (1969)]
Afterglow Diffusion in Various Gases. (E/T) V. V. Bulanin, A. P. Zhilinskii, and V. I. Smirnov. 14, 464 (1969) [39, 617 (1969)]
Two Potential Distributions in Knudsen Flow Operation of a Thermionic Converter in a Transverse Magnetic Field. (E) A. Ya. Ender. 14, 762 (1969) [39, 1016 (1969)]
Precursor Ionization in Front of a Moving Plasmoid. (E) O. A. Malkin and A. K. Musin. 14, 821 (1969) [39, 1092 (1969)]
Electrode Space-Charge Sheath in a Plasma Moving in a Magnetic Field. (T) A. K. Musin. 14, 828 (1969) [39, 1101 (1969)]
Investigation of Preignition Processes in Trigratrons Operating in Air. (E) P. I. Shkuropat. 14, 943 (1970) [39, 1256 (1969)]
Transient Characteristics of a Spark Discharge in a Gas. (E) A. V. Kiselev. 14, 1083 (1970) [39, 1443 (1969)]
Effect of Perturbations in the Langmuir Cathode Sheath on the Rate of Ionization in Arc Discharges. (E) I. P. Stakhanov. 14, 1115 (1970) [39, 1486 (1969)]
Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]
Ionization of Polarized Atomic Hydrogen in a Penning Discharge. (E) Yu. A. Plis and L. M. Soroko. 14, 1216 (1970) [39, 1622 (1969)]
Ion Current Distribution at the Cathode Surface in a Low-Pressure Penning Discharge. (T) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 1219 (1970) [39, 1625 (1969)]
Effect of Ionization and Recombination on the Electrodynamic Acceleration of a Plasma. (T) P. M. Kolesnikov. 14, 1316 (1970) [39, 1750 (1969)]

Effect of a Nonlinear Monochromatic Wave on the Electrical Conductivity of a Fully Ionized Plasma. (T) F. Baimbetov and N. L. Tsintsadze. 14, 1339 (1970) [39, 1781 (1969)]
Surface Ionization of Easily Ionized Atoms in the Threshold Temperature Region. (T/E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1423 (1970) [39, 1893 (1969)]
Surface-Ionization Kinetics of Cesium on Tungsten by the Flash Method. (E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1432 (1970) [39, 1905 (1969)]
Approximation Method for Calculating Equilibrium Ionization in an Inert Gas. (T/E) N. V. Sinitsyn. 14, 137 (1969) [39, 1911 (1969)]
Theory of Thermionic Converters with Volume Ionization. (T/E) V. A. Shustov and T. K. Zerzdkina. 14, 1339 (1970) [39, 1913 (1969)]
Excitation and Ionization in a Helium Microwave Discharge. (E/T) A. I. Maksimov. 14, 1500 (1970) [39, 1989 (1969)]
Theory of the Low-Voltage Arc in the Thermionic Converter. (T/E) A. A. Belokon' and É. B. Sonin. 14, 1583 (1970) [39, 2105 (1969)]
Hollow-Cathode Thermionic Converter Operating with a Low-Voltage Cesium Arc. (E) É. P. Busygin, V. G. Grigor'yants, and I. P. Yavor. 14, 1593 (1970) [39, 2119 (1969)]
Virtual Cathode in a Spherical Diode. (T) B. V. Eliseev and Yu. P. Mordinov. 14, 1637 (1970) [39, 2169 (1969)]
Optimum Electrical Power of Thermionic Converters with Mo, W, Re, and Ir Cathodes. (E) V. A. Shustov and T. K. Zvezdkina. 14, 1683 (1970) [39, 2231 (1969)]
Recombination Coefficient of a Weakly Ionized Gas in an Electric Field. (T) I. S. Veselovskii. 14, 1685 (1970) [39, 2233 (1969)]
Influence of the Finite Length of a Cylindrical Probe on the Ion Current. (T) Yu. M. Kagan and V. I. Perel'. 14, 1689 (1970) [39, 2238 (1969)]
Weakly Charged Gas between Coaxial Electrodes. (T) I. B. Chekmarev. 14, 1692 (1970) [39, 2241 (1969)]
The Langmuir Law and the Hydrodynamic Solution for One-Dimensional Motion of a Charged Gas. (T) I. B. Chekmarev. 14, 1695 (1970) [39, 2245 (1969)]

MAGNETIC PHENOMENA

Design of Cooled Solenoids for the Production of Pulsed Magnetic Fields. (E/T) V. G. Kotenko and A. G. Limar'. 14, 290 (1969) [39, 395 (1969)]
Emission of Energetic Ions from a Penning Discharge in an Inhomogeneous Magnetic Field. (E) Yu. V. Kursanov, and L. P. Skripal'. 14, 500 (1969) [39, 666 (1969)]
Intense Pulsed Magnetic Fields in Reinforced Multiturn Coils. (E/T) E. S. Borovik, A. G. Limar', and Yu. A. Litvinenko. 14, 510 (1969) [39, 678 (1969)]
Possibility of Obtaining a Minimum B Configuration in a Helical Magnetic Field. (T) S. S. Romanov. 14, 851 (1969) [39, 1130 (1969)]
Production of Uniform Electron Irradiation Fields by Stationary Magnetic Fields. (T) V. P. Belov. 14, 914 (1970) [39, 1218 (1969)]
Approximate Theory for Amplification of Magnetic Fields. (T) N. N. Kalitkin and L. S. Tsareva. 14, 1050 (1970) [39, 1397 (1969)]
Computer Solution of Two-Dimensional Nonlinear Magnetostatic Problems (Strong-Saturation Case). (T/E) N. I. Doinikov and A. S. Simakov. 14, 1097 (1970) [39, 1463 (1969)]
Compensation of Toroidal Particle Drift by a Rotating Magnetic Field. (T) T. R. Soldatenkov. 14, 1355 (1970) [39, 1803 (1969)]
Stray Magnetic Fields above a Ferromagnet. (T/E) V. P. Bilenskii. 14, 1395 (1970) [39, 1855 (1969)]
Impossibility of Producing Dispersive Electron-Optical Systems with Two-Dimensional Electrostatic and Magnetostatic Fields. (T) E. M. Yakushev. 14, 1458 (1970) [39, 1934 (1969)]
Effect of Toroidal Geometry on Magnetic Surfaces in a Stellarator. (T) I. S. Danilkin and I. K. Karpenko. 14, 1477 (1970) [39, 1959 (1969)]

MAGNETICS

Transients in the Channel of a Conduction MHD Generator with a Nonlinear Inductance in the External Circuit. (T/E) A. I. Khozhainov. 14, 129 (1969) [39, 184 (1969)]
Stabilization of Axially Symmetric Perturbations of a Conducting Fluid by a Distributed Automatic-Control System. (T) M. M. Dargeiko and Yu. I. Samoilenko. 14, 310 (1969) [39, 422 (1969)]

MASERS AND LASERS

Discharge in a Penning Tube and in a Cylindrical Magnetron at Low Pressures. (T/E) G. V. Smirnitskaya and Nguen Khyu Ti. 14, 522 (1969) [39, 694 (1969)]

MAGNETOHYDRODYNAMICS AND MAGNETOHYDROSTATICS

Carbon Dioxide Dissociation in a CO_2 Laser. (E) E. S. Gasilevich, V. A. Ivanov, É. N. Lotkova, V. N. Ochkin, N. N. Sobolev, and N. G. Yaroslavskii. 14, 86 (1969) [39, 126 (1969)]
Effect of Amplitude Fluctuations on the Beat Frequency Stability of the Traveling Waves in a Ring Laser. (T) É. M. Belenov. 14, 92 (1969) [39, 133 (1969)]
Kinetics of the Free-Oscillation Spectrum of a Ruby Laser without Mode Discrimination. (E) V. I. Malyshev, A. S. Markin, and A. A. Sychev. 14, 241 (1969) [39, 334 (1969)]
Plasma Diagnostics in a Pinch-Discharge Laser. (E/T) A. N. Vasil'eva, V. M. Likhachev, and V. M. Sutovskii. 14, 246 (1969) [39, 341 (1969)]
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. G. Konstantinov, V. B. Konstantinov, A. A. Rizkin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]
Diffusers in Holography. (E) O. B. Gusev and V. B. Konstantinov. 14, 258 (1969) [39, 354 (1969)]
Anisotropic Stability of Calcite ($CaCO_3$) Against Laser Radiation. (E) A. A. Poplavskii and L. D. Khazov. 14, 299 (1969) [39, 407 (1969)]
Modes and Threshold Conditions in a Three-Mirror Resonator. (T) V. I. Perel' and I. V. Rogova. 14, 379 (1969) [39, 513 (1969)]
Transient Characteristics of a Laser with Modulated Resonator Parameters. (T) L. N. Magdich. 14, 383 (1969) [39, 518 (1969)]
Line Shape and Dip Width in the Gain Curve of a He–Ne Laser at the Wavelength of 0.63 μ. (E/T) S. A. Gonchukov, G. A. Mikhnenko, E. D. Protsenko, and A. I. Troinikov. 14, 391 (1969) [39, 528 (1969)]
Pyrotechnically Excited Quasi-CW Laser. (E) A. A. Kaminskii, A. I. Bodretsova, and S. I. Levikov. 14, 396 (1969) [39, 535 (1969)]
Effect of Discharge Fluctuations on the Output of a Laser. (E) A. A. Zaitsev, V. F. Makhrov, I. A. Savchenko, and B. N. Shvilkin. 14, 575 (1969) [39, 764 (1969)]
Effect of Spatial Inhomogeneity of the Optical Field on Laser Gain Saturation. (T) A. I. Odintsov, V. V. Lebedeva, and I. V. Shafranovskaya. 14, 657 (1969) [39, 879 (1969)]
Radiation Kinetics of a Q-Spoiled Optical Resonator. II. Passive Modulator. (T) A. M. Ratner and V. S. Chernov. 14, 662 (1969) [39, 885 (1969)]
Investigation of an Electric Discharge Across a Laser Spark. (E) V. I. Vladimirov, G. M. Malyshev, G. T. Razdobarin, and V. V. Semenov. 14, 677 (1969) [39, 906 (1969)]
Double-Pass Laser Amplifier. (E) I. F. Balashov, V. A. Berenberg, and V. V. Blagoveshchenskii. 14, 692 (1969) [39, 926 (1969)]
Selection of Longitudinal Modes in a Ring Gas Laser. (E) V. Yu. Petrun'kin, M. G. Vysotskii, and R. I. Okunev. 14, 694 (1969) [39, 928 (1969)]
Angle, Time, and Frequency Characteristics of a Traveling-Wave Ruby Laser. (E) V. V. Antsiferov, G. V. Krivoshchenkov, V. S. Pivtsov, and K. G. Folin. 14, 696 (1969) [39, 931 (1969)]
Experimental Investigation of Coupled Open Resonators. (E) V. A. Epishin, V. V. Kamyshan, and R. A. Valitov. 14, 716 (1969) [39, 954 (1969)]

Submillimeter CW Laser Using H_2O or HCN. (E) S. F. Dyubko, V. A. Svich, and R. A. Valitov. 14, 855 (1969) [39, 1135 (1969)]
Level Populations in a Hollow-Cathode Discharge in Neon. (E/T) I. M. Belousova and V. B. Znamenskii. 14, 859 (1969) [39, 1140 (1969)]
Electromagnetic Oscillations in a Three-Dimensional Resonator in a Rotating Reference Frame. (T) A. M. Belonogov. 14, 883 (1970) [39, 1175 (1969)]
Mass Spectrometer with a Laser Ion Source for Determination of Microimpurities. (E) Yu. A. Bykovskii, V. I. Dorofeev, V. I. Dymovich, B. I. Nikolaev, S. V. Ryzhikh, and S. M. Sil'nov. 14, 955 (1970) [39, 1272 (1969)]
Single-Pulse Laser with an Unstable Resonator. (E) Yu. A. Anan'ev, N. A. Sventsitskaya, and V. E. Sherstovitov. 14, 997 (1970) [39, 1325 (1969)]
Some Properties of Ring-Type Unstable Cavities with Angular Selection of Radiation. (T) Yu. A. Anan'ev and G. N. Vinokurov. 14, 1000 (1970) [39, 1327 (1969)]
Vibration of the Walls of a Cavity Resonator Under Ponderomotive Forces in the Presence of Feedback. (T/E) M. M. Karliner, V. M. Petrov, and I. A. Shekhtman. 14, 1041 (1970) [39, 1383 (1969)]
Resonator Losses in Solid-State Lasers. (E) Yu. A. Kalinin, A. A. Mak, and A. I. Stepanov. 14, 1255 (1970) [39, 1676 (1969)]
Energy Distribution of the Ions Produced by a Larger Laser Pulse on a Solid Target. (E/T) Yu. A. Bykovskii, N. N. Degtyarenko, V. I. Dymovich, V. F. Elesin, Yu. P. Kozyrev, B. I. Nikolaev, S. V. Ryzhinkh, and S. M. Sil'nov. 14, 1269 (1970) [39, 1694 (1969)]
Effect of a Longitudinal Magnetic Field on the Ouptut of a CW Argon Laser with Brewster Windows. (E) A. É. Fotiadi and S. A. Fridrikhov. 14, 1292 (1970) [39, 1719 (1969)]
Mode Deformation in Open Resonators with Plane Mirrors. (T) Yu. A. Anan'ev, V. V. Lyubimov, and I. B. Orlova. 14, 1408 (1970) [39, 1872 (1969)]
On Enhanced Optical Gain. (T) I. F. Balashov and V. A. Berenberg. 14, 1415 (1970) [39, 1881 (1969)]
Amplification of Short Optical Pulses in Neodymium Glass. (T/E) A. A. Mak, B. G. Malinin, V. A. Novikov, D. S. Prilezhaev, A. I. Stepanov, and V. I. Ustyugov. 14, 1418 (1970) [39, 1886 (1969)]
Polarization Effects in an He–Ne Laser Operating at $\lambda = 3.39\ \mu$ in a Magnetic Field. (E/T) D. K. Terekhin and S. A. Fridikhov. 14, 1444 (1970) [39, 1919 (1969)]
Continuous Generation of Coherent Radiation in a Discharge in Zn and Cd Vapors Obtained by Cathode Sputtering. (E) É. K. Karabut, V. S. Mikhalevskii, V. F. Papakin, and M. F. Sém. 14, 1447 (1970) [39, 1923 (1969)]
Time Lag of the Spectrum of a Solid-State Laser with Strongly Degenerate Modes. (T/E) A. M. Ratner, V. S. Solov'ev, and T. I. Tiunova. 14, 1547 (1970) [39, 2059 (1969)]
Eigenmodes of a Laser Resonator with Concave Mirrors and a Hole for Beam Extraction. (T) G. Shennagel'. 14, 1553 (1970) [39, 2066 (1969)]
Field of a Charged Particle Moving along the Axis of an Optically Active Cylinder. (T) O. S. Mergelyan. 14, 1604 (1970) [39, 2125 (1969)]
Effect of Misalignment of Resonator Mirrors on Losses and Angular Distribution. (T) V. V. Lyubimov and I. B. Orlova. 14, 1648 (1970) [39, 2183 (1969)]
Effect of Laser and Medium Parameters on Second-Harmonic Generation. (T) V. D. Volosov. 14, 1652 (1970) [39, 2188 (1969)]
Selection of Longitudinal Modes in a Gas Laser with a Three-Mirror Resonator. (E) I. M. Belousova, O. B. Danilov, and A. F. Zapryagaev. 14, 1676 (1970) [39, 2223 (1969)]
Stress Distribution in Transparent Objects by Holographic Interferometry. (E) A. N. Zaidel', V. S. Listovets, and Yu. I. Ostrovskii. 14 1678 (1970) [39, 2225 (1969)]
High-Output High-Coherence Diffraction-Limited Ruby Laser. (E) N. E. Korneev, Yu. I. Pavlov, and A. V. Folomeev. 14, 1699 (1970) [39, 2250 (1969)]

MATHEMATICAL PHYSICS

Model for the Stochastic Heating of Electrons. (T) R. V. Polovin and V. V. Rozhkov. 14, 1026 (1970) [39, 1360 (1969)]
Exact Solutions of Nonlinear Electrodynamic Equations. (T) N. G. Puchkova. 14, 1034 (1970) [39, 1372 (1969)]
Approximate Theory for Amplification of Magnetic Fields. (T) N. N. Kalitkin and L. S. Tsareva. 13, 1050 (1970) [39, 1397 (1969)]
Application of Gauss Brackets to Calculations Involving Dispersive Electron-Optical Systems. (T) V. N. Chechulin and S. Ya. Yavor. 14, 1093 (1970) [39, 1457 (1969)]
Computer Solution of Two-Dimensional Nonlinear Magnetostatic Problems (Strong-Saturation Case). (T/E) N. I. Doinikov and A. S. Simakov. 14, 1097 (1970) [39, 1463 (1969)]
Spatial-Gain Criterion for Parabolic Equations. (T) A. M. Fedorchenko. 14, 1163 (1970) [39, 1549 (1969)]
Statistical Processing of Observations of Meteoritic Phenomena. (E) L. V. Chernysheva. 14, 1266 (1970) [39, 1689 (1969)]
Production of Nonmonochromatic Charged-Particle Beams Using Generalized Amplitude and Phase Functions. (T) Yu. N. Grigor'ev and V. V. Petrenko. 14, 1625 (1970) [39, 2154 (1969)]

METAL PHYSICS

Interaction of He^+ Ions with Certain Metals. (E) A. Ya. Vyatskin, V. V. Alekseev, and K. A. Makarov. 14, 408 (1969) [39, 549 (1969)]
Work Function of Molybdenum–Rhenium Alloys. (E) E. M. Savitskii, I. V. Burov, and L. N. Litvak. 14, 535 (1969) [39, 713 (1969)]
Desorption of Atoms of Rare-Earth Elements from a Rhenium Surface. (E) N. I. Alekseev. 14, 704 (1969) [39, 940 (1969)]
Initiation of Vacuum Breakdown by Metal Particles. (E) P. V. Poshekhonov and M. M. Pogorel'skii. 14, 811 (1969) [39, 1080 (1969)]
The Emission Properties of Tungsten–Rhenium Alloys. (E) N. D. Konovalov, V. A. Kuznetsov, and B. M. Tsarev. 14, 834 (1969) [39, 1110 (1969)]
Phase Transitions of Potassium Chloride and Its Alloys with Rubidium Chloride at High Pressures. (E) L. D. Livshits, Yu. N. Ryabinin, and L. V. Larionov. 14, 837 (1969) [39, 1115 (1969)]
Boundary Conditions for the Determination of Time-Varying Magnetic Fields near Thin Metal Shells. (T) S. V. Zhukov. 14, 865 (1970) [39, 1149 (1969)]

MICROWAVES

Determination of Electron Density in Plasma Jets Using a Microwave Fabry-Perot Interferometer and the Stark Effect. (E) G. A. Odintsova and E. P. Vaulin. 14, 68 (1969) [39, 102 (1969)]
Investigation of the Microwave Oscillations Excited in a Gas Discharge by an Electron Beam. (E) I. E. Sakharov. 14, 198 (1969) [39, 278 (1969)]
Interaction of Microwave Oscillations and Low-Frequency Oscillations in a Beam-Plasma System. (E) S. M. Levitskii, V. Z. Shapoval, and I. P. Shashurin. 14, 343 (1969) [39, 465 (1969)]
Determination of Local Plasma Parameters by Absorption Measurements on a Refracted Microwave Beam. (E) L. A. Dushin, V. A. Pitkin, A. I. Skibenko, and I. D. Fomin. 14, 348 (1969) [39, 471 (1969)]
Investigation of Plasma Compression Using Microwave Reflection. (E) V. A. Ipatov, M. G. Kaganskii, S. G. Kalmykhov, and V. A. Ovsyannikov. 14, 479 (1969) [39, 638 (1969)]
Interaction of Microwaves with a Positive Column in a Waveguide. (E) M. V. Krivosheev. 14, 613 (1969) [39, 816 (1969)]
Anomalous Absorption of Microwave Power by a Plasma at Supercritical Electron Densities. (E) V. E. Golant and M. V. Krivosheev. 14, 719 (1969) [39, 958 (1969)]
Plasma Absorption of RF Energy Near the Lower Hybrid Frequency. (T) B. V. Galaktionov, V. E. Golant, A. D. Piliya, and O. N. Shcherbinin. 14, 721 (1969) [39, 960 (1969)]

Frequency-Time Spectra of Pulsed Microwave Signals. (E) I. A. Grishaev, B. B. Mufel', and T. F. Nikitina. 14, 930 (1970) [39, 1237 (1969)]
Cyclotron Heating of Plasma Ions and Electrons by High-Frequency Fields. (E) B. V. Galaktionov, K. M. Novik, K. A. Podushnikova, B. P. Poloskin, and O. N. Shcherbinin. 14, 1059 (1970) [39, 1411 (1969)]
Pulsed Arcs in Argon and Helium at Microwave Frequencies. (E) E. S. Borovik, V. I. Petrenko, R. V. Mitin, V. P. Kantsedal, and Yu. R. Knyazev. 14, 1063 (1970) [39, 1416 (1969)]
Intensity Modulation of the Optical-Radiation Lines in an RF Discharge. (E) O. S. Akirtava, A. M. Bogus, and V. L. Dzhikiya. 14, 1070 (1970) [39, 1425 (1969)]
Detailed Structure of Beam-Plasma Instability. (E) V. A. Lavrovskii, V. M. Deev, S. A. Rogashkov, Yu. G. Yaremenko, and I. F. Kharchenko. 14, 1190 (1970) [39, 1586 (1969)]
Axially Symmetric Electromagnetic Field in a Cylindrical Cavity Resonator with Conducting Irises or Drift Tubes. (T) V. G. Andreev. 14, 1516 (1970) [39, 2011 (1969)]
New Method for Measurement of Permittivity at Millimeter and Submillimeter Wavelengths. I. Permittivity of Thin Films. (E/T) V. V. Pilipenko, G. G. Polovnikov, V. G. Sologub, and V. P. Shestopalov. 14, 1662 (1970) [39, 2203 (1969)]

MISCELLANEOUS

A Method for Producing a Rapidly Rising Current Pulse in an Inductive Load. (T/E) V. F. Sikolenko. 14, 61 (1969) [39, 93 (1969)]
Standard Facsimile Channel Transmission of Holograms with a Restricted Number of Half-Tones. (E) B. P. Konstantinov, S. B. Gurevich, G. A. Gavrilov, A. A. Kolesnikov, A. B. Konstantinov, V. B. Konstantinov, A. A. Rizkhin, and D. F. Chernykh. 14, 251 (1969) [39, 347 (1969)]
Thermal-Diffusion Pressure Effect. (E/T) N. D. Kosov, A. F. Bogatyrev, and L. I. Kurlapov. 14, 841 (1969) [39, 1119 (1969)]
Possible Mechanism for Discharges in Thunderstorms. (T) B. I. Savchenko. 14, 1079 (1970) [39, 1437 (1969)]
Statistical Processing of Observations of Meteroritic Phenomena. (E) L. V. Chernysheva. 14, 1266 (1970) [39, 1689 (1969)]
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. I. (T/E) V. I. Petrosyan, É. I. Dagman, D. S. Aleksenko, and P. A. Skripkina. 14, 1560 (1970) [39, 2076 (1969)]
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. II. (T/E) V. I. Petrosyan and É. I. Dagman. 14, 1567 (1970) [39, 2084 (1969)]
Stress Distribution in Transparent Objects by Holographic Interferometry. (E) A. N. Zaidel', V. S. Listovets, and Yu. L. Ostrovskii. 14, 1678 (1970) [39, 2225 (1969)]
Weakly Charged Gas between Coaxial Electrodes. (T) I. B. Chekmarev. 14, 1692 (1970) [39, 2241 (1969)]

MOLECULAR PHYSICS

Transport Properties of Gaseous Saturated Hydrocarbons. (T) Yu. T. Mazurenko. 14, 566 (1969) [39, 752 (1969)]

OPTICS AND OPTICAL TECHNIQUES

Stress Tensor in a Dispersive Medium. (T) B. P. Kononov. 14, 759 (1969) [39, 1011 (1969)]
Photoeffect in Electron Emission from the Cathode in a Glow Discharge in Kr and Xe. (T/E) B. N. Klyarfel'd and B. I. Moskalev. 14, 800 (1969) [39, 1066 (1969)]
Intensity Modulation of the Optical-Radiation Lines in an RF Discharge. (E) O. S. Akirtava, A. M. Bogus, and V. L. Dzhikiya. 14, 1070 (1970) [39, 1425 (1969)]
On Enhanced Optical Gain. (T) I. F. Balashov and V. A. Berenberg. 14, 1415 (1970) [39, 1881 (1969)]
Optical Characteristics of the Beam of a Linear Electron Accelerator. (E) G. K. Dem'yanenko and P. M. Ryabka. 14, 1622 (1970) [39, 2150 (1969)]

PLASMA DIAGNOSTICS

Probe Measurements of a Knudsen Arc in Argon. (E) Yu. A. Byrdin and A. F. Nastoyashchii. 14, 65 (1969) [39, 98 (1969)]
Determination of Electron Density in Plasma Jets Using a Microwave Fabry-Perot Interferometer and the Stark Effect. (E) G. A. Odintsova and E. P. Vaulin. 14, 68 (1969) [39, 102 (1969)]
A Multi-Electrode Probe for Negative Potentials Relative to a Plasma. (E) E. A. Bakulin, M. M. Bredov, E. V. Stepin, and V. V. Shcherbinina. 14, 73 (1969) [39, 108 (1969)]
Retardation Method for Plasma Measurements. (E) E. A. Bakulin, E. V. Stepin, and V. V. Shcherbinina. 14, 77 (1969) [39, 114 (1969)]
Plasma Diagnostics in a Pinch-Discharge Laser. (E/T) A. N. Vasil'eva, V. M. Likhachev, and V. M. Sutovskii. 14, 246 (1969) [39, 341 (1969)]
Determination of Local Plasma Parameters by Absorption Measurements on a Refracted Microwave Beam. (E) L. A. Dushin, V. A. Pitkin, A. I. Skibenko, and I. D. Fomin. 14, 348 (1969) [39, 471 (1969)]
Mass-Energy Measurements of Plasma Trapped in the Aperture of a Divertor in Injection through a Magnetic Slot. (E) V. M. Zalkind, V. G. Zykov, V. I. Karpukhin, N. I. Rudnev, and V. T. Tolok. 14, 925 (1970) [39, 1231 (1969)]
Theory of a Cylindrical Probe. (E/T) O. Ya. Savchenko. 14, 1187 (1970) [39, 1582 (1969)]
Influence of the Finite Length of a Cylindrical Probe on the Ion Current. (T) Yu. M. Kagan and V. I. Perel'. 14, 1689 (1970) [39, 2238 (1969)]

PLASMA PHYSICS

Stability of a Magnetized Plasma in a Strong High Frequency Field. (T) L. M. Gorbunov and V. P. Silin. 14, 1 (1969) [39, 3 (1969)]
High Frequency Oscillations in Beam-Plasma Interactions. (E) O. S. Shcheglov and F. G. Zvereva. 14, 23 (1969) [39, 37 (1969)]
Incoherent Reflection of Electromagnetic Waves from a Plasma (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 27 (1969) [39, 42 (1969)]
Amplification of Electric-Field Fluctuations Close to a Body in Plasma. (T) V. V. Smirnova. 14, 32 (1969) [39, 49 (1969)]
Interaction of a Modulated Charged-Particle Beam with a Plasma in a Magnetic Field. I. Excitation of Characteristic Plasma Oscillations by Modulated Electron Beams. (T) É. A. Pashitskii. 14, 149 (1969) [39, 209 (1969)]
Interaction of a Modulated Charged-Particle Beam with a Plasma in a Magnetic Field. II. Excitation of Characteristic Plasma Oscillations by Modulated Ion Beams. (T) É. A. Pashitskii. 14, 155 (1969) [39, 218 (1969)]
Electron Recombination Coefficient with Three Body Collisions in a Plasma. (T) I. S. Veselovskii. 14, 193 (1969) [39, 271 (1969)]
Plasma Flow a Hot-Cathode Penning Discharge into a Vacuum Region with No Magnetic Field. (E) M. D. Gabovich, L. I. Romanyuk, and V. V. Ustalov. 14, 207 (1969) [39, 291 (1969)]
Angular Distribution of Electrons Escaping at a Plasma-Electrode Interface. (T) I. P. Stakhanov and P. P. Shcherbinin. 14, 219 (1969) [39, 306 (1969)]
Thin Cylindrical Antenna in an Isotropic Plasma. (T) A. A. Andronov and V. Ya. Éĭdman. 14, 267 (1969) [39, 365 (1969)]
Current-Voltage Characteristics of a Thermionic Converter at High Current Densities. Ionization Equilibrium in the Plasma of the Low-Voltage Arc. (T) F. G. Bakshi, I. L. Korobova, and B. Ya. Moizhes. 14, 300 (1969) [39, 408 (1969)]
Oscillations of a Weakly Ionized Collisional Plasma. (T) B. M. Markeev. 14, 307 (1969) [39, 417 (1969)]
Tangential Injection of Plasma into a Toroidal Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, and V. G. Padalka. 14, 327 (1969) [39, 444 (1969)]
Interaction of Microwave Oscillations and Low-Frequency Oscillations in a Beam-Plasma System. (E) S. M. Levitskii, V. Z. Shapoval, and I. P. Shashurin. 14, 343 (1969) [39, 465 (1969)]

Effect of Refraction on the Interferometric Measurements of Electron Density. (T) B. Anichin. 14, 354 (1969) [39, 478 (1969)]
Theory of the Electrodic Sheath in a Low-Temperature Plasma. (T) F. G. Baksht, B. Ya. Moizhes, and V. A. Nemchinskii. 14, 417 (1969) [39, 558 (1969)]
Interaction of a Rotating Electron Beam with Asymmetric Modes in a Magnetized-Plasma Waveguide. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 439 (1969) [39, 587 (1969)]
Nonlinear Waves in a Three-Component Plasma. (T) A. D. Pataraya and D. S. Adzhiashvili. 14, 453 (1969) [39, 602 (1969)]
Solitary Waves in a Three-Component Collisionless Plasma. (T) A. D. Pataraya. 14, 456 (1969) [39, 607 (1969)]
Excitation of Plasma Waves near the Lower Hybrid Resonance. (E/T) O. M. Shvets, S. M. Sotnikov, V. F. Tarasenko, and S. S. Ovchinnikov. 14, 459 (1969) [39, 610 (1969)]
Induced Scattering of Quasi-Longitudinal Cyclotron Waves in a Plasma. (T) A. P. Kropotkin and N. V. Sholokhov. 14, 472 (1969) [39, 628 (1969)]
Investigation of Plasma Compression Using Microwave Reflection. (E) V. A. Ipatov, M. G. Kaganskii, S. G. Kalmykhov, and V. A. Ovsyannikov. 14, 479 (1969) [39, 638 (1969)]
Anomalous Diffusion in a Collisional Plasma in a Magnetic Field. (T) A. M. Fridman. 14, 484 (1969) [39, 644 (1969)]
Possible Charge Separation in a Plasma by Recombination Radiation. (T) A. Ya. Voronov. 14, 580 (1970) [39, 770 (1969)]
Plasma Transport Equations. (T) A. Yu. Kirii and V. P. Silin. 14, 583 (1970) [39, 773 (1969)]
The Relaxation of Electron and Ion Temperatures in a Plasma in a Strong Magnetic Field. (T) V. P. Silin and G. P. Chernyi. 14, 589 (1970) [39, 781 (1969)]
Nonlinear Interaction of Electrostatic Waves with Ion-Ion Collisions in a Turbulent Plasma. (T) V. G. Makhan'kov and V. N. Tsytovich. 14, 594 (1969) [39, 788 (1969)]
Application of the Reciprocity Theorem to Scattering of Electromagnetic Waves by Fluctuations in a Bounded Plasma. (T) I. P. Yakimenko. 14, 602 (1969) [39, 800 (1969)]
Double-Focus Plasma Ion-Optical Systems. (T) A. I. Morozov. 14, 645 (1969) [39, 862 (1969)]
Anomalous Absorption of Microwave Power by a Plasma at Supercritical Electron Densities. (E) V. E. Golant and M. V. Krivosheev. 14, 719 (1969) [39, 958 (1969)]
Plasma Absorption of RF Energy Near the Lower Hybrid Frequency. (T) B. V. Galaktionov, V. E. Golant, A. D. Piliya, and O. N. Shcherbinin. 14, 721 (1969) [39, 960 (1969)]
Stability of a Cylindrical Electron Layer in a Uniform Magnetic Field Surrounded by a Metal Shield. (T) I. N. Ivanov and V. G. Makhan'kov. 14, 725 (1969) [39, 965 (1969)]
Depolarization of a Plasma Stream in Constant and Variable Transverse Magnetic Fields. (E) E. Ya. Gol'ts and A. Z. Khodzhaev. 14, 741 (1969) [39, 988 (1969)]
Experimental Investigation of an RF Discharge Used as a Plasma Waveguide. (E) A. M. Egorov, A. F. Kivshik, and L. I. Bolotin. 14, 765 (1969) [39, 1020 (1969)]
Electrode Space-Charge Sheath in a Plasma Moving in a Magnetic Field. (T) A. K. Musin. 14, 828 (1970) [39, 1101 (1969)]
Possibility of Obtaining a Minimum B Configuration in a Helical Magnetic Field. (T) S. S. Romanov. 14, 851 (1969) [39, 1130 (1969)]
Propagation of Surface Waves in a Magnetoactive Plasma. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 853 (1969) [39, 1132 (1969)]
Longitudinal Potential Gradient in a Positive Column in H_2 and D_2. (E) L. N. Breusova. 14, 862 (1969) [39, 1143 (1969)]
Interaction between Magnetoacoustic Waves in a Weakly Inhomogeneous Plasma. (T) A. S. Grebinskii. 14, 877 (1970) [39, 1166 (1969)]
Plasma Injection into a Stellerator through a Divertor. (E/T) V. G. Zykov and N. I. Rudnev. 14, 918 (1970) [39, 1223 (1969)]
Plasma Efficiency Coefficient δ in an Overdense Glow Discharge. (E) L. Yu. Abramovich, B. N. Klyarfel'd, and Yu. N. Nastich. 14, 939 (1970) [39, 1251 (1969)]
Wave Kinetics in an Anisotropic Plasma. II. (T) G. I. Suramlishvili. 14, 1334 (1970) [39, 1774 (1969)]
Slow Nonelectrostatic Waves in an Inhomogeneous Plasma. (T) A. M. Fridman. 14, 1019 (1970) [39, 1350 (1969)]
Electron Energy Distribution in the Electrode Sheath in a Weakly Ionized Plasma. (T) F. G. Baksht. 14, 1196 (1970) [39, 1594 (1969)]
Fast Electron Distribution at a Cathode. (T) I. P. Stakhanov and P. P. Shcherbinin. 14, 1205 (1970) [39, 1607 (1969)]
Plasma Production in the Tornado Device. (E) G. A. Galechyan and B. P. Peregud. 14, 1272 (1970) [39, 1696 (1969)]
Surface Drift Oscillations of a Plasma. (T/E) E. E. Lovetskii and V. P. Silakov. 14, 1283 (1970) [39, 1709 (1969)]
Stationary Waves in a Magnetoactive Multicomponent Collisionless Plasma. (T) A. D. Pataraya. 14, 1288 (1970) [39, 1714 (1969)]
Nonlinear Generation of Plasma Waves by a Beam of Transverse Waves. IV. (T) V. N. Tsytovich. 14, 1321 (1970) [39, 1756 (1969)]
Effect of a Nonlinear Monochromatic Wave on the Electrical Conductivity of a Fully Ionized Plasma. (T) F. Baimbetov and N. L. Tsintsadze. 14, 1339 (1970) [39, 1781 (1969)]
Effect of Ion-Ion Collisions on the Nonlinear Interaction of Plasma Waves. (T) V. G. Makhan'kov and B. G. Shchinov. 14, 1343 (1970) [39, 1786 (1969)]
Nonlinear Theory of the Hydrodynamic Two-Stream Instability. II. (T) V. G. Makhan'kov and B. G. Shchinov. 14, 1349 (1970) [39, 1795 (1969)]
Compensation of Toroidal Particle Drift by a Rotating Magnetic Field. (T) T. R. Soldatenkov. 14, 1355 (1970) [39, 1803 (1969)]
Effect of the Ion-Acoustic Instability on the Skin Effect in a Plasma. (T) B. N. Breizman, V. V. Mirnov, and D. D. Ryutov. 14, 1365 (1970) [39, 1817 (1969)]
Cooling of a Dense Deuterium Plasma. (E/T) G. I. Goncharova. 14, 1387 (1970) [39, 1845 (1969)]
Approximation Method for Calculating Equilibrium Ionization in an Inert Gas. (T/E) N. V. Sinitsyn. 14, 1437 (1970) [39, 1911 (1969)]
Reflection of Electromagnetic Waves from a Stratified Plasma. (T) V. I. Miroshnichenko. 14, 1473 (1970) [39, 1954 (1969)]
Effect of Toroidal Geometry on Magnetic Surfaces in a Stellarator. (T) I. S. Danilkin and I. K. Karpenko. 14, 1477 (1970) [39, 1595 (1969)]
Determination of the Electron Energy Distribution in a Plasma in the Presence of Oscillations. (T/E) Yu. M. Kagan, V. M. Milenin, N. K. Mitrofanov, and V. L. Smirnov. 14, 1497 (1970) [39, 1985 (1969)]
Excitation and Ionization in a Helium Microwave Discharge. (E/T) A. I. Maksimov. 14, 1500 (1970) [39, 1989 (1969)]
Stability of Trapped-Particle Oscillations in a Nonneutral Plasma. (T) S. E. Rosinskii and V. G. Rukhlin. 14, 1612 (1970) [39, 2136 (1969)]
Plasma Polarization in the Low-Frequency Region. (E) A. F. Aleksandrov, A. A. Kuzovnikov, V. S. Sviridkina, and V. V. Tarasova. 14, 1628 (1970) [39, 2158 (1969)]
Incoherent Scattering of Electromagnetic Waves from a Plasma-Filled Waveguide. (T) I. P. Yakimenko. 14, 1632 (1970) [39, 2163 (1969)]
Nonlinear Interaction of Surface Waves in Nonisothermal Plasma. (T) A. N. Kondratenko and V. G. Shaptala. 14, 1681 (1970) [39, 2229 (1969)]
Strong Absorption of Electromagnetic Radiation in an Inhomogeneous Collisionless Plasma. (T) V. Ya. Davydovskii and E. M. Yakushev. 14, 1687 (1970) [39, 2236 (1969)]

PLASMA RADIATION

Radiation from a Dense Plasma Generated by an Exploded Wire in a Vacuum. (E) E. K. Chekalin and V. S. Shumanov. 14, 46 (1969) [39, 71 (1969)]
Possible Charge Separation in a Plasma by Recombination Radiation. (T) A. Ya. Voronov. 14, 580 (1969) [39, 770 (1969)]

Multipole Degeneracy of the Eigenfrequencies of a Plasmoid and Its Effect on Resonant Radiation-Pressure. (T) M. L. Levin and R. Z. Muratov. 14, 1285 (1970) [39, 1712 (1969)]

PLASMA STABILITY

Ion-Acoustic Oscillations in an Inhomogeneous Plasma. (E) M. A. Vlasov. 14, 10 (1969) [39, 18 (1969)]
Low-Frequency Hydrodynamic Instability of a Current-Carrying Inhomogeneous Plasma. (T) I. S. Baikov, E. Ya. Kogan, S. S. Moiseev, and A. A. Rukhadze. 14, 163 (1969) [39, 230 (1969)]
Stabilization of Certain Plasma Instabilities by High-Frequency Pressure. (T) V. P. Sidorov. 14, 169 (1969) [39, 238 (1969)]
Oscillations of a Weakly Ionized Collisional Plasma. (T) B. M. Markeev. 14, 307 (1969) [39, 417 (1969)]
Current Convective Instability of a Weakly Plasma in the Pressure of a Feedback, (T) V. V. Arsenin and V. A. Chuyanov. 14, 315 (1969) [39, 429 (1969)]
Excitation of Plasma Waves near the Lower Hybrid Resonance. (E/T) O. M. Shvets, S. M. Sotnikov, V. F. Tarasenko, and S. S. Ovchinnikov. 14, 459 (1969) [39, 610 (1969)]
Nonlinear Interaction of Electrostatic Waves with Ion-Ion Collisions in a Turbulent Plasma. (T) V. G. Makhan'kov and V. N. Tsytovich. 14, 594 (1969) [39, 788 (1969)]
Flute Instability in a Current-Carrying Plasma. (T) S. E. Rosinskii and V. G. Rukhlin. 14, 606 (1969) [39, 805 (1969)]
Instability of an Afterglow Plasma in a Magnetic Field. (E) V. V. Bulanin, V. E. Golant, and A. P. Zhilinskii. 14, 712 (1969) [39, 948 (1969)]
Absolute and Convective Instability Criterion for Parametrically Interacting Waves. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 714 (1969) [39, 951 (1969)]
Stabilization of Large-Scale Plasma Instabilities by Feedback. (T) V. V. Arsenin. 14, 1166 (1970) [39, 1553 (1969)]
Instability of a Magnetized Plasma in a High-Frequency Field. (T) N. E. Andreev. 14, 1171 (1970) [39, 1560 (1969)]
Detailed Structure of Beam-Plasma Instability. (E) V. A. Lavrovskii, V. M. Deev, S. A. Rogashkov, Yu. G. Yaremenko, and I. F. Kharchenko. 14, 1190 (1970) [39, 1586 (1969)]
Electrostatic Instability Criterion for a Plasma with an Irregular Distribution Function. (T) V. A. Zherebtsov. 14, 1212 (1970) [39, 1617 (1969)]
Surface Drift Oscillations of a Plasma. (T/E) E. E. Lovetskii and V. P. Silakov. 14, 1283 (1970) [39, 1709 (1969)]
Nonlinear Theory of the Hydrodynamic Two-Stream Instability. II. (T) V. G. Makhan'kov and B. G. Shchinov. 14, 1349 (1970) [39, 1795 (1969)]
Nonlinear-Dissipative Instability for Magnetoacoustic Waves. (T) V. N. Oraevskii and V. P. Pavlenko. 14, 1352 (1970) [39, 1799 (1969)]
Effect of the Ion-Acoustic Instability on the Skin Effect in a Plasma. (T) B. N. Breizman, V. V. Mirnov, and D. D. Ryutov. 14, 1365 (1970) [39, 1817 (1969)]
Instability of a Current-Carrying Homogeneous Plasma. (T) V. I. Arel'ev. 14, 1487 (1970) [39, 1973 (1969)]
Two-Stream Ion Instability in a Plasma Traversed by an Ion Beam of Finite Dimensions. (T/E) A. A. Goncharov and G. S. Kirichenko. 14, 1492 (1970) [39, 1979 (1969)]
Plasma Stability in a Corrugated Magnetic Field. (T) V. F. Aleksin and V. I. Yashin. 14, 1608 (1970) [39, 2130 (1969)]

PLASMOIDS

Plasma Stream in an Inhomogeneous Transverse Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, V. G. Padalka, B. N. Rutkevich, and K. D. Sinel'nikov. 14, 16 (1969) [39, 27 (1969)]
Interelectrode Processes in a Tenuous Plasma Stream with a Boundary Layer. (E/T) E. K. Chekalin and A. M. Watson. 14, 41 (1969) [39, 64 (1969)]
Determination of Electron Density in Plasma Jets Using a Microwave Fabry-Perot Interferometer and the Stark Effect. (E) G. A. Odintsova and E. P. Vaulin. 14, 68 (1969) [39, 102 (1969)]
Braking and Purification of a Plasma Jet by a Rapidly Increasing Magnetic Field. (E/T) V. I. Vasil'ev, V. S. Komel'kov, and S. S. Tserevitinov. 14, 322 (1969) [39, 438 (1969)]
Tangential Injection of Plasma into a Toroidal Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, and V. G. Padalka. 14, 327 (1969) [39, 444 (1969)]
Erosion Electrodynamic Plasma Accelerator with Inductive Energy Storage. (T) V. M. Gurov and N. A. Khizhnyak. 14, 338 (1969) [39, 458 (1969)]
Plasma Induction Source with Reduced Impurity Content. II. (E) I. A. Kossyi and I. S. Shpigel'. 14, 486 (1969) [39, 647 (1969)]
Limiting Velocity of Plasmoids in Electrodynamic Accelerators. (T) V. N. Grigor'ev. 14, 491 (1969) [39, 653 (1969)]
Velocity of Plasma Inhomogeneities in Crossed Electric and Magnetic Fields. (T) I. B. Chekmarev, S. I. Rozov, and E. M. Drobyshevskii. 14, 496 (1969) [39, 660 (1969)]
Electrodynamic Plasma Acceleration in High-Current Pulsed Accelerators. (T) P. M. Kolesnikov, A. Ya. Azarevich, G. I. Vyatkin, V. Ya. Zorik, V. F. Kashpruk, and V. V. Shevchenko. 14, 622 (1969) [39, 829 (1969)]
Depolarization of a Plasma Stream in Constant and Variable Transverse Magnetic Fields. (E) E. Ya. Gol'ts and A. Z. Khodzhaev. 14, 741 (1969) [39, 988 (1969)]
Precursor Ionization in Front of a Moving Plasmoid. (E) O. A. Malkin and A. K. Musin. 14, 821 (1969) [39, 1092 (1969)]
Plasma Injection into a Stellerator through a Divertor. (E/T) V. G. Zykov and N. I. Rudnev. 14, 918 (1970) [39, 1223 (1969)]
Mass-Energy Measurements of Plasma Trapped in the Aperture of a Divertor in Injection through a Magnetic Slot. (E) V. M. Zalkind, V. G. Zykov, V. I. Karpukhin, N. I. Rudnev, and V. T. Tolok. 14, 925 (1970) [39, 1231 (1969)]
Spatial Distributions in a Synthesized Plasma Beam. (E) K. S. Golovanivskii and A. I. Lushchik. 14, 1085 (1970) [39, 1446 (1969)]
Multipole Degeneracy of the Eigenfrequencies of a Plasmoid and Its Effect on Resonant Radiation-Pressure. (T) M. L. Levin and R. Z. Muratov. 14, 1285 (1970) [39, 1712 (1969)]
Effect of Ionization and Recombination on the Electrodynamic Acceleration of a Plasma. (T) P. M. Kolesnikov. 14, 1316 (1970) [39, 1750 (1969)]
Rotation and Instability in Plasmoids Moving into a Magnetic Field. (E) A. A. Kalmykov and S. A. Trubchaninov. 14, 1379 (1970) [39, 1834 (1969)]
Possible Mechanism for the Formation of the Fast Component in an Electrodynamically Accelerated Plasma. (T) N. A. Khizhnyak. 14, 1534 (1970) [39, 2040 (1969)]
Dynamic Stabilization of a Pinch in a Longitudinal Magnetic Field. (T/E) M. G. Nikulin. 14, 1618 (1970) [39, 2144 (1969)]

RADIATION

Thermal Radiation of Certain Bodies. II. Inhomogeneous Sphere. (T) L. A. Nazarenko and I. P. Yakimenko. 14, 1030 (1970) [39, 1365 (1969)]
X Rays from Pulsed Discharges in Air. (E) L. V. Tarasova, and L. N. Khudyakova. 14, 1148 (1970) [39, 1548 (1969)]
Selective Excitation of X-Ray Fluorescence by Mixed Primary Radiation. (T/E) G. V. Pavlinskii and N. F. Losev. 14, 1247 (1970) [39, 1664 (1969)]
Effect of a Metal Sheet on the Radiation from a Charge Moving Parallel to the Boundary between Two Dielectrics. (T) L. G. Naryshkina and I. M. Yurkov. 14, 1360 (1970) [39, 1810 (1969)]
Certain Properties of Transition Radiation in Uniaxial Crystals. (T) O. S. Mergelyan. 14, 1673 (1970) [39, 2220 (1969)]

RESONANCE

Resonance Effects with Absorption. (T) Yu. A. Medvedev and V. A. Sosnin. 14, 1225 (1970) [39, 1634 (1969)]

SCATTERING

Induced Scattering of Quasi-Longitudinal Cyclotron Waves in a Plasma. (T) A. P. Kropotkin and N. V. Sholokhov. 14, 472 (1969) [39, 628 (1969)]

Application of the Reciprocity Theorem to Scattering of Electromagnetic Waves by Fluctuations in a Bounded Plasma. (T) I. P. Yakimenko. 14, 602 (1969) [39, 800 (1969)]

SEMICONDUCTORS

Investigation of Transmission Reflection, and Absorption of He^+ Ions in Thin Semiconductor Films. (E) A. Ya. Vyat-skin, K. A. Makarov, and V. V. Alekseev. 14, 413 (1969) [39, 554 (1969)]

A Study of Chemisorption of Oxygen on the (111) Face of Germanium and Silicon Single Crystals by Slow Electron Irradiation. (E) M. I. Datsiev. 14, 965 (1970) [39, 1284 (1969)]

SHOCK WAVES

Investigation of Physical Processes in an Electrode-Discharge Shock Tube. (E) L. I. Grechikhin, B. B. Davydov, and L. Ya. Min'ko. 14, 518 (1969) [39, 689 (1969)]

Shock Structure in Binary Mixtures. (T) A. D. Pataraya. 14, 1331 (1970) [39, 1770 (1969)]

Gas Motion behind a Strong Shock Front with Radiation Losses. (T) V. A. Metalitsyn. 14, 1670 (1970) [39, 2215 (1969)]

SUPERCONDUCTIVITY

I-V Characteristics of Superconducting Tunnel Junctions. (E/T) I. Kh. Albegova, B. I. Borodai, I. K. Yanson, and I. M. Dmitrenko. 14, 681 (1969) [39, 911 (1969)]

Gravitational Wave Detector with a Superconducting Resonance Element. (T) G. Ya. Lavrent'ev. 14, 989 (1970) [39, 1316 (1969)]

SURFACE PHENOMENA

Thermionic Emission of Certain Refractory Materials and Possible Use As Cathodes in Gaseous Devices. (E) B. S. Kul'varskaya, A. I. Rekov, V. E. Serebrennikova, V. A. Nikolaeva, and Kh. S. Kan. 14, 122 (1969) [39, 175 (1969)]

Angular Distribution of Electrons Escaping at a Plasma-Electrode Interface. 14, 219 (1969) [39, 306 (1969)]

Electrode Erosion Mechanism in a Pulsed Vacuum Discharge. (E) V. I. Rakhovskii and A. M. Yegudaev. 14, 227 (1969) [39, 317 (1969)]

Photodesorption of OH Radicals from a ZnO Surface Containing Adsorbed Water. (E) A. A. Lisachenko and F. I. Vilesov. 14, 442 (1969) [39, 590 (1969)]

Heat of Particle Desorption from a Metal Surface in an Electric Field. (T) N. I. Ionov. 14, 538 (1969) [39, 716 (1969)]

Surface Ionization, Evaporation, and Desorption of Ions in an Electric Field. (T) N. I. Ionov. 14, 542 (1969) [39, 721 (1969)]

Evaporation Rates of Carbide Thermionic Cathodes and Estimates of Operating Temperatures. (E) B. S. Kul'varskaya. 14. 548 (1969) [39, 728 (1969)]

Desorption of Atoms of Rare-Earth Elements from a Rhenium Surface. (E) N. I. Alekseev. 14, 704 (1969) [39, 940 (1969)]

Effect of Adsorbent Temperature on Probability of Desorption of O^+ Ions by Slow Elements. (E) É. N. Kutsenko. 14. 706 (1969) [39, 942 (1969)]

Effective Charge Density and Electric Field at a Dielectric Surface. (T) Yu. K. Golikov, L. A. Serebrov, and K. G. Utkin. 14, 708 (1969) [39, 944 (1969)]

Metal Sputtering by the Cathode Spot of a Vacuum Arc. (E) B. N. Klyarfel'd, N. A. Neretina, and N. N. Druzhinina. 14. 796 (1969) [39, 1061 (1969)]

Retrograde Motion of the Cathode Spot in a Magnetic Field. (T) A. P. Nevskii. 14, 803 (1969) [39, 1070 (1969)]

Vacuum Breakdown with Controlled Electrode Surfaces. (E) P. N. Chistyakov, A. L. Radionovskii, N. V. Tatarinova, N. E. Novikov, and D. S. Treshchikova. 14, 807 (1969) [39, 1075 (1969)]

Desorption of O^+ and H^+ Ions from a Graphite Surface under Slow-Electron Bombardment. (E) M. I. Datsiev and Yu. I. Belyakov. 14, 848 (1969) [39, 1128 (1969)]

Effect of Cathode Surface State on the Dielectric Strength of Gases and Liquids. (E) Yu. L. Stankevich and V. G. Kalinin. 14, 949 (1970) [39, 1264 (1969)]

Desorption, by Slow-Electron Bombardment, of Ions and Neutral Molecules from Gases Adsorbed on the Surface of Tungsten. (E) V. N. Ageev and É. N. Kutsenko. 14, 958 (1970) [39, 1275 (1969)]

A Study of Chemisorption of Oxygen on the (111) Face of Germanium and Silicon Single Crystals by Slow Electron Irradiation. (E) M. I. Datsiev. 14, 965 (1970) [39, 1284 (1969)]

Determination of the Heat of Desorption of Potassium and Cesium Ions and Atoms on Tungsten, Molybdenum, and Tantalum Surfaces. (E) N. I. Ionov, E. N. Lebedeva, and Ts. S. Marinova. 14, 995 (1970) [39, 1323 (1969)]

Interaction of Water Vapor with Tungsten Surfaces. (E) V. N. Ageev, N. I. Ionov, and Yu. K. Ustinov. 14, 1009 (1970) [39, 1337 (1969)]

The Stability of a Plasma Cylinder in the Field of a Traveling Magnetic Wave Taking Hall Currents into Account. (T) V. N. Starkova. 14, 1055 (1970) [39, 1405 (1969)]

Desorption of Oxygen from Tungsten. (E) V. N. Ageev and N. I. Ionov. 14, 1142 (1970) [39, 1523 (1969)]

Investigation of Oxygen Adsorption on Tungsten by Secondary Ion-Ion Emission. (E) V. F. Rybalko, B. Ya. Kolot, and Ya. M. Fogel'. 14, 1290 (1970) [39, 1717 (1969)]

Surface Ionization of Easily Ionized Atoms in the Threshold Temperature Region. (T/E) N. I. Ionov, E. N. Lebedeva, and M. A. Mittsev. 14, 1423 (1970) [39, 1893 (1969)]

Surface-Ionization Kinetics of Cesium on Tungsten by the Flash Method. (E) N. I. Ionov, F. N. Lebedeva, and M. A. Mittsev. 14, 1432 (1970) [39, 1905 (1969)]

THERMOELECTRICITY

Thermionic Emission of Certain Refractory Materials and Possible Use As Cathodes in Gaseous Devices. (E) B. S. Kul'varskaya, A. I. Rekov, V. E. Serebrennikova, V. A. Niloaeva, and Kh. S. Kan. 14, 122 (1969) [39, 175 (1969)]

Enhancement of Thermoelectric Coupling in Nonstationary Operation. (T) V. P. Babin and E. K. Iordanishvili. 14, 293 (1969) [39, 399 (1969)]

THERMONUCLEAR FUSION

Tangential Injection of Plasma into a Toroidal Magnetic Field. (E) I. I. Demidenko, N. S. Lomino, and V. G. Padalka. 14, 327 (1969) [39, 444 (1969)]

Possibility of Obtaining a Minimum B Configuration in a Helical Magnetic Field. (T) S. S. Romanov. 14, 851 (1969) [39, 1130 (1969)]

Plasma Injection into a Stellarator through a Divertor. (E/T) V. G. Zykov and N. I. Rudnev. 14, 918 (1970) [39, 1223 (1969)]

Plasma Production in the Tornado Device. (E) G. A. Galechyan and B. P. Peregud. 14, 1272 (1970) [39, 1696 (1969)]

Effect of Toroidal Geometry on Magnetic Surfaces in a Stellarator. (T) I. S. Danilkin and I. K. Karpenko. 14, 1477 (1970) [39, 1959 (1969)]

Plasma Stability in a Corrugated Magnetic Field. (T) V. F. Aleksin and V. I. Yashin. 14, 1608 (1970) [39, 2130 (1969)]

Stability of Trapped-Particle Oscillations in a Nonneutral Plasma. (T) S. E. Rosinskii and V. G. Rukhlin. 14, 1612 (1970) [39, 2136 (1969)]

Dynamic Stabilization of a Pinch in a Longitudinal Magnetic Field. (T/E) M. G. Nikulin. 14, 1618 (1970) [39, 2144 (1969)]

VACUUM TECHNOLOGY

Electrode Erosion Mechanism in a Pulsed Vacuum Discharge. (E) (E) V. I. Rakhovskii and A. M. Yegudaev. 14, 227 (1969) [39, 317 (1969)]

Cryosorption Pumping in the Range 760 torr to Ultrahigh Vacuum. (E) P. M. Kobsev, Yu. V. Kholod, and V. B. Yuferov. 14, 424 (1969) [39, 567 (1969)]

Pumping of Helium by Condensed Layers of Gases in the Pressure Range 10^{-9} to 10^{-13} torr. (E) V. B. Yuferov and P. M. Kobzev. 14. 427 (1969) [39, 571 (1969)]

Investigation of Cryosorption Extraction of Helium, Hydrogen, and Deuterium by Layers of Condensed Gases. (E) V. B. Yuferov and P. M. Kobzev. 14. 1261 (1970) [39, 1083 (1969)]

Mechanism for Electric Breakdown in High Vacuum. (E) L. I. Pranevichyus and I. Yu. Bartashyus. 14, 1301 (1970) [39, 1728 (1969)]

Cryogenically Cooled Channels as Differential Pumping Systems. (T/E) V. B. Yuferov, E. I. Skibenko, and B. V. Glasov. 14, 1577 (1970) [39, 2097 (1969)]

WAVEGUIDES

Fields in Complex Waveguide Combinations. (T) O. G. Vendik, I. G. Mironenko, and F. V. Yavnoshan. 14, 357 (1969) [39, 483 (1969)]

Interaction of a Rotating Electron Beam with Asymmetric Modes in a Magnetized-Plasma Waveguide. (T) N. Ya. Kotsarenko and A. M. Fedorchenko. 14, 439 (1969) [39, 587 (1969)]

Interaction of Microwaves with a Positive Column in a Waveguide. (E) M. V. Krivosheev. 14, 613 (1969) [39, 816 (1969)]

Experimental Investigation of an RF Discharge Used as a Plasma Waveguide. (E) A. M. Egorov, A. F. Kivshik, and L. I. Bolotin. 14, 765 (1969) [39, 1020 (1969)]

Investigation of the $(2/3)\pi$ Hybrid EH_{11} Mode in an Iris-Loaded Waveguide. (T/E) I. R. Yampol'skii. 14, 900 (1970) [39, 1199 (1969)]

Excitation of Hybrid Oscillations of a Relativistic Electron Beam in an Iris-Loaded Waveguide. (E) V. M. Grizhko, A. I. Zykov, I. A. Grishaev, and G. D. Kratskoi. 14, 1234 (1970) [39, 1646 (1969)]

Matching of a Microtron Resonator to a Waveguide. (T/E) I. M. Matora and R. V. Khar'yuzov. 14, 1506 (1970) [39, 1997 (1969)]

Design of High-Q Cavities and Sections of Iris-Loaded Waveguides with Large Apertures for Particles. (T/E) A. N. Didenko and R. G. Kaminskaya. 14, 1527 (1970) [39, 2029 (1969)]

Incoherent Scattering of Electromagnetic Waves from a Plasma-Filled Waveguide. (T) I. P. Yakimenko. 14, 2163 (1970)

Cyclotron Heating of Plasma Ions and Electrons by High-Frequency Fields. (E) B. V. Galaktionov, K. M. Novik, K. A. Podushnikova, B. P. Poloskin, and O. N. Shcherbinin. 14, 1059 (1970) [39, 1411 (1969)]

Spatial Distributions in a Synthesized Plasma Beam. (E) K. S. Golovanivskii and A. I. Lushchik. 14, 1085 (1970) [39, 1446 (1969)]

Low-Voltage Arc in a Low-Pressure Cesium Converter. (E/T) F. G. Baksht, I. G. Gverdtsiteli, G. A. Dyuzhev, V. B. Kaplan, R. Ya. Kucherov, B. Ya. Moizhes, V. K. Nevolin, G. I. Tkeshelashvili, V. P. Tsiberev, and V. G. Yur'ev. 14, 1153 (1970) [39, 1536 (1969)]

Structure of Two-Stream Oscillations Excited by an Electron Beam in a Plasma. (E) Yu. G. Yaremenko, V. M. Deev, S. M. Eremin, and I. F. Kharchenko. 14, 1158 (1970) [39, 1541 (1969)]

Cyclotron Interaction between an Electron Beam and the Fast Magnetosonic Wave. (E) A. I. Ermakov and N. I. Nazarov. 14, 1180 (1970) [39, 1573 (1969)]

Effect of Low-Frequency Oscillations on the Cyclotron Radiation of a Plasma Column. (E) Yu. K. Kuznetsov, O. S. Pavlichenko, and V. N. Starikov. 14, 1184 (1970) [39, 1578 (1969)]